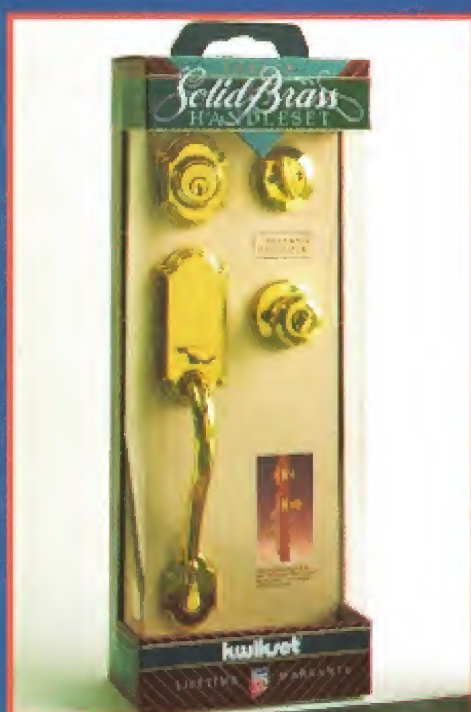


July 1992

# The National Locksmith®

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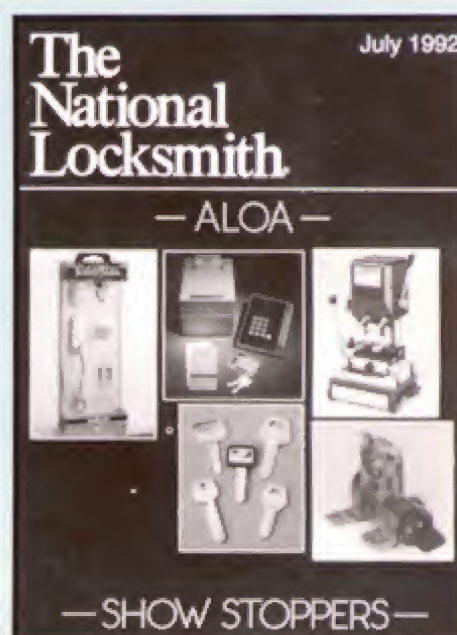


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you wish to read*

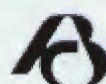


**On The Cover**  
Featured are products from: (clockwise from top left) Kwikset; Medeco Security locks; HPC, Inc.; Briggs & Stratton Technologies; and Silca Keys U.S.A. These companies are just five of the many exhibitors at ALOA '92 in Baltimore. For the complete list of exhibitors turn to page 80. Also turn to page 58 for our Annual Showstoppers product review section.

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# Commentary

## Announcing The National Safeman's Organization!

This month we are very proud to introduce you to a very important new organization for all locksmiths. The National Safeman's Organization (NSO) is for *all* security professionals who either are—or want to be—involved with safe work.

*The National Locksmith* puts a good amount of emphasis already on safe work, as you know. But we feel this area can be a profitable one for a wider spectrum of our present readers. However, we cannot do justice to the area of safes, vaults, tools and techniques in the magazine alone.

So it is that *The National Locksmith* magazine and Dave Mc Omie have launched an organization that will have time and space to deal with one topic and one topic only. We will offer educational materials, such as our newsletter *The National Safeman*, designed to offer great value for old time safemen, as well as the beginners.

Our quarterly newsletter will contain dynamite information each month for both the novice and the old pro. If you want to read about high security safes...we'll have it. If you want to read about the common safes found in businesses and homes...we'll have it. If you want to get started in safe work and you need help getting that part of your business going...we'll have it.

What we won't have is a bunch of space wasting stuff just to fill up pages in the newsletter. We won't have a lot of advertising-type material which is design to try and sell you a bunch of stuff. You will be amazed at the first issue of *The National Safeman* because it contains as much or more important information in it as several safe books. It has more usable information in that one issue than we have room for in a whole year's worth of *The National Locksmith*.

Furthermore, I think you may just be flabbergasted at the introductory special membership offer contained in this magazine. Please see pages 172 to 175 for complete details. If you will be at the ALOA show in Baltimore, please stop by our booth (#814) and visit with us. You can even sign up then.

*The National Locksmith* will continue to offer a healthy diet of safe articles and information. Dave will still be writing for the magazine. You will not notice any changes

there. But if you desire much more than we can fit in the magazine, the NSO is for you. Whether you want to get started in this aspect of the business, or if you've been doing safe work for years, the NSO offers you information, training and fellowship.

\*\*\*\*\*

Last month as I said, I was interviewed by Chicago's Channel 5 as part of one of these locksmith sting operations. The stings going around the country have involved hidden cameras taping as a locksmith is called out to a car or home not owned by the reporter. Often, the locksmith requests no ID, and opens the lock.

On Channel 5, I defended the locksmith's point of view. It is often difficult or impossible to completely verify a customer's claim of ownership. However, with all the fuss, we still recommend that you make a good effort to request and record ID such as driver's license information.

This simply is a protection for you so that later on, no one can claim that you did not attempt to take security precautions. These stings have been all around America. Perhaps your town is next!



*Marc Goldberg*  
Editor/Publisher

July 1992 5



# Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips. Who knows, you may be our next winner! c/o The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107

by Robert Sieveking

## July's Best Tip

Occasionally it is desirable to find the combination to a Simplex lockset, off the door. When you have gained entry, and are able to remove the lockset from the door, you will find these instructions helpful. The object here is to find and retain the unknown combination, without changing it. In cases where a number of locks may be set to the same combination, this Technitip will be very handy.

1. Remove the lockset from the door and disassemble it, removing the lock chamber from the chassis. Remove the "U" shaped metal cover, stamped "Simplex," to reveal the unlocking slide and 5 slotted gears.

2. Rotate the unlocking shaft counterclockwise to clear the buttons.

3. Any wheel slot that is aligned with the unlocking slide, at this point, indicates an unused gear, or an unused number. If only one wheel slot is aligned, the combination will use four digits (in any combination) to open. If two wheel slots are aligned, the

combination will use three of the digits, in the combination. If three wheel slots are aligned, only two digits are used in the combination. If no wheel slots are aligned, all digits will be used in the combination.

4. Depress the button lever for the wheel that is closest to being properly aligned with the unlocking slide. If the wheel slot

## These Prizes Awarded Each Month!

All-Lock A-7000 VATS Decoder  
HPC Pistolpick  
Silca Rubberhead Keyblanks (100 blanks)  
ESP PR-13 Professional Lock Pick Set  
Sieveking Products EZ-Pull GM Wheel Puller

*Submit your tip and win!*

## How To Enter

All you need to do to enter is submit a tip, covering any aspect of locksmithing to The National Locksmith. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Robert Sieveking, Technitips' Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will **not** be eligible! So get busy and send in your tips today. You may win cash merchandise, or even one of many key machines or code book sets! At the end of the year, we choose the winners of the listed prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1992? Enter today! It's a lot easier than you think!

## Every Tip Wins 'Locksmith Bucks!'

Yes, every tip published wins a prize. But remember, you must submit your tip to *The National Locksmith* exclusively. Each and every tip published in Technitips wins you \$25.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from *The National Locksmith*. You also receive a Bonded Locksmith bumper sticker and decal. Plus you are now eligible for the really big prizes!

## Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$35.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal and a Locksmith Cap. Plus, you may win one of the annual prizes.



necessary to measure a manufacturer's original key, to find the spacing dimensions or depths, use your 1200CM.

Place the micrometer card in the code machine, and carefully clamp the manufacturer's cut key in the key vise. Use a good light below the key blade, and bring the key into alignment with the cutter using the lateral control knob. Center the cutter in the cut, and slowly bring the key to the cutter, with the depth knob, while rotating the cutter backwards, by hand. The light below the key blade will help you center the cutter in the cut, and the cutter, rotated by hand will lightly brush or bump the key blade when the correct depth is reached. Read the cut dimension (depth and space) directly from the micrometer card. This method will allow you to easily and accurately determine the depth and space specs for most keys.

Jerry R. Robinson  
Illinois

\*\*\*\*\*

#### Silca Keyblanks Winner

The other day I went to rekey a house that had the old National Lock deadbolts. The tailpieces on the lock cylinders were badly worn, but I couldn't change out the locks because they were 2" backset. This is a special backset for thin stile patio doors. I was able to use the tailpieces from the new style Weiser deadbolt as a direct replacement. There was no modification necessary, and the lock worked perfectly. This Tip may save you hunting a replacement 2" backset lock, when the actuators twist off.

Here is a second Technitip, for your customers who need a place to put that extra key, on their car. Magnetic boxes continue to sell well in this area, but I can't imagine where they put them, with all the plastic on the new cars. I recommend that the customer put a piece of wide "Duct" tape over a pair of keys, off the ring so they lay flat under the tape, and stick them to the rear of the license plate or around a bumper strut. The keys will be secure, and completely protected from the weather. Use your imagination, as to where to put the keys, but they should be relatively handy.

Juanita Ramsey  
Texas

\*\*\*\*\*

#### ESP Pickset Winner

This Technitip provides a simple way for the locksmith to give his customer a special one way or A-B keyed cylinder. The store owner can have a cylinder that operates differently for either of two keys. An "A" key, for example, can be a master, allowing a cylinder to be operated in either direction to lock or unlock a door. A "B" key can be restricted to operate in one direction only, to either lock or unlock a particular cylinder. You can issue a "lock-up key" to an

employee, that will only lock a door. This restriction is handy because the key will not allow the employee to re-enter the store at an unauthorized hour. What ever your application, the two key restricted cylinder can be very handy. The cylinder modification can be done on the truck, in less than fifteen minutes.

To alter the plug, as you see in illustration one, you must first determine which direction the cylinder will be allowed to rotate in the "restricted" mode. If the cylinder rotates left to lock the door (extend a



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# Newsmakers

## New Products and Industry News

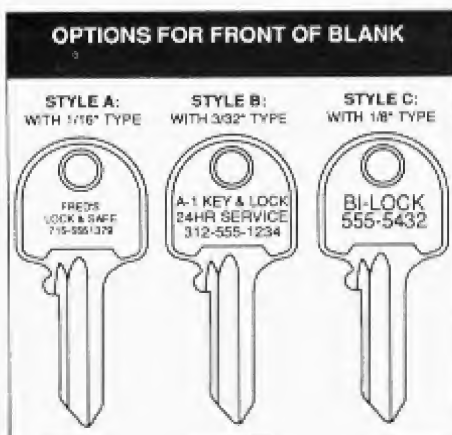
### Jet Acquires Neuter Bow Blanks

Jet Hardware Manufacturing Corporation of Brooklyn, New York has announced that they have acquired all of the tools, dies and machinery from HPC, Schiller Park, Illinois for the manufacturing of HPC's line of "neuter bow" key blanks. Key blanks for all of the custom personalized dies which were made for HPC's "neuter bow" customers are now available from Jet through their authorized distributors.

Several of the thirty-one different blanks have been redesigned, engineered and improved with the placement of a bottom shoulder. The shoulder is required for several of the punch type key machines for code work. Because they were not available on the original "neuter bow" series,

those blanks could not be used.

All of the the "neuter bow" blanks are manufactured utilizing the finest brass material and will be nickel plated.



### Brauner To Head Fichet-Brauner USA

In April, Fichet-Bauche North America appointed as President, Norm Brauner, its former Service Director, and owner of Security Technologies in Atlanta, Georgia. Fichet-Bauche North America will now be doing business as Fichet-Brauner USA.

Mr. Brauner began in this industry as a locksmith, then became a certified safecracker, ultimately one of Fichet's highest volume distributors.

As President he will be handling marketing, distribution and all future research and development of U.L. tested safes.



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### Northern Computers Releases Omnilock

Northern Computers is pleased to announce the release of the Northern Omnilock. This new self contained single door access control system is designed to replace existing door knobsets with no wiring. The Northern Omnilock and its hand-held infrared printer form a complete system that offers 250 individual access codes, history of the last 250 events, holiday scheduling, access level control, and more.



### Sara Probasco's Seminars: Business of Locksmithing

Sara kicked off her spring tour by presenting her day-long class, *The Business of Locksmithing*, at Montana Locksmith Association convention in Helena, Montana, on April 25th. She conducted the same seminar for SAVTA in Las Vegas, NV, and for associations in Fayetteville, NC, and Waltham, MA. Sara has received excellent ratings from those who have attended her seminars and received many requests for booking.

Covering everything from why businesses fail (and how to avoid the pitfalls) to simple bookkeeping procedures and advertising techniques, Sara guides participants in ways to increase cash flow and keep their businesses operating profitably.

A few dates remain open in late August and September, as Sara begins planning her fall and winter schedule with an eye towards an international speaking tour in early 1993.

### Announcing Pan American Security Suppliers

Pan American Security Suppliers, Inc. (PASS), a new full-line distributor group with eight warehouses nationwide, was recently incorporated in Florida. PASS members specialize in security products and door hardware for commercial and residential applications, as well as decorative hardware.

According to Marvin Cutson, President of PASS, the group's emphasis is placed on expanding product and supply inventories for the security and access market at all their member locations. A primary focus of the PASS group will be the development of dealer programs that will strengthen the dealer base in each of their individual market segments.

The members of the Pan American Security Suppliers, Inc. include: Southern Lock & Supply of Pinellas Park, Miami and Oakland Park, Florida, and Charlotte, North Carolina; Fried Brothers of Philadelphia; Lock Supply of Phoenix, Arizona; and Fairway Supply of Dallas and Houston, Texas.

## NATIONAL AUTO LOCK SERVICE, INC.

**National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.**

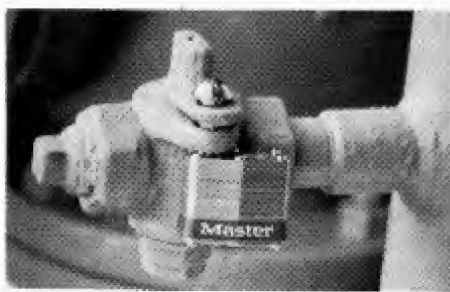
[www.laserkey.com](http://www.laserkey.com)



### Master Lock's Utility Padlock

Increase security while reducing maintenance costs for trucks, vending machines and industrial equipment such as electric meter rings and boxes and gas, water and steam valves, with the utility padlock from Master Lock.

Constructed with a single, case-hardened post shackle, the padlock eliminates the part of a lock most susceptible to attack, the loop of the shackle. It features 3/8" diameter shackle which secures locking holes with 7/16" through 9/16" diameter openings, laminated steel case, or laminated brass case with a chrome-plated shackle, for corrosion resistance.



### IEI Announces Door-Gard™ Keypads

International Electronics Inc introduces the new mullion style IEI Door-Gard™ Keypads.

The new keypads come in a contemporary styled one piece, cast aluminum housing that provides both pleasing style and durability. It incorporates high contrast numbers on its weather resistant membrane style keypad for easy readability and with its narrow mullion design, it can be used on nearly any door frame.



### Pine Technical College's Locksmithing Program

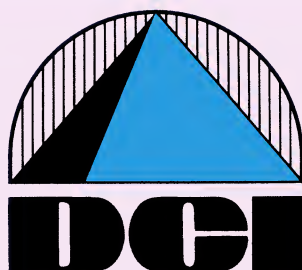
Pine Technical College, part of Minnesota's public higher education system, provides employment-oriented education. Graduates of the Locksmithing Technician program have successfully completed 96 credits, or about 1500 classroom hours, of instruction divided into three types of classes:

Technical locksmithing classes combine theory and supervised practice in basic locksmithing skills such as impressioning, picking, and installations.

Industry related classes include security theory and management, small business management, marketing, basic electricity, and welding.

General education is required for all of Minnesota's Technical College graduates. Their program includes 12 credits of math, communication skills, and computer use.

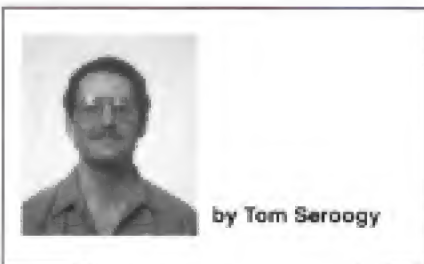
Financial aid is available through veterans benefits, guaranteed student loans, federal grants, and scholarships.



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by Tom Seroogy

## Servicing '92 Honda Civic

*"Opening and service for this model year car is still a fairly easy task when you know the procedures. An airbag is new."*

**L**istening to the Cubs lose to Cincinnati didn't add much to the afternoon (wait till next year, right?), but working on the ignition of a '92 Civic kept my attention. (See photograph 1.)

Many of the basics are still present



1. The 1992 Honda Civic LX.

on the '92. They use the 5000-8442 code series, the X182 key blank, and a slide lock type tool can still be used to



2. The Ignition, plug and facecap were extracted using a slidehammer during reposition. Note tilt column.

grab and move the vertical lock-button rod to open the vehicle. What's new, however, is the presence of an airbag (present in all '92 Hondas) and a slightly modified ignition assembly.

The Civic in this article had its ignition forcibly removed during a repossession. I was to install a new one after first keying it to the rest of the car. (See photograph 2.)

Before starting, it was necessary to disconnect the battery and shunt the airbag. After removing and taping the negative cable from the battery (see photograph 3), I slid into the passenger side seat. Turning the steering wheel exposed a small panel at the bottom. (See photograph 4.)



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Removing the panel gave me access to the airbag connector and the shunting terminal. (See *photograph 5*.) After carefully disconnecting the airbag terminals I slid the shunt over the connector. (See *photograph 6*.)

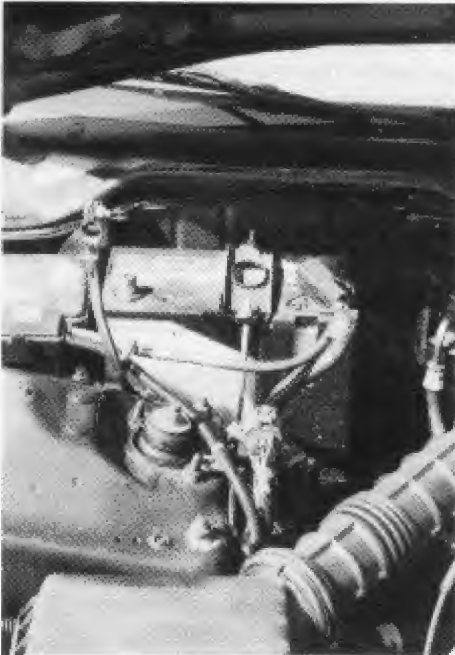
Removing the column shroud revealed an ignition housing hidden by wiring harnesses and the turn-

signal switch assembly. Although it looked intimidating, access to areas critical for ignition removal were, to a limited degree, clear. (See *photograph 7*.)

Normally, I would depress the ignition retaining button and remove the ignition cylinder. Due to the minor damage received during the

repossession, however, this was not possible. So, I opted for replacing the whole ignition housing.

I removed as many of the switches and connectors from the ignition housing as possible. (See *photograph 8*.) The ignition switch (electrical), buzzer activator and key interlock safety switch were all held on with



3. Disconnect battery before starting.



4. Airbag connector/shunt access panel.



5. The airbag connector and shunt.



**SCHWAB CORP.**

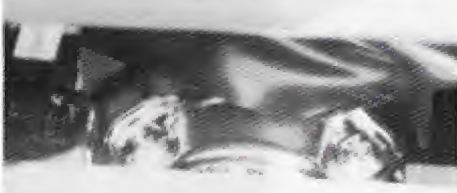
*Fire protection for your vital records.*

**It's not safe unless  
it's Schwab Safe.**

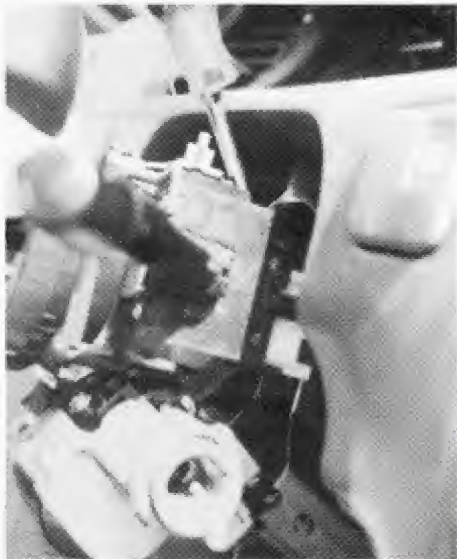
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Continued from page 34



10. Even with the tilt down the break-away bolts were just exposed enough to remove.



11. Removing the bolts

beneath. (See photograph 12.)

Before installing the new ignition, I

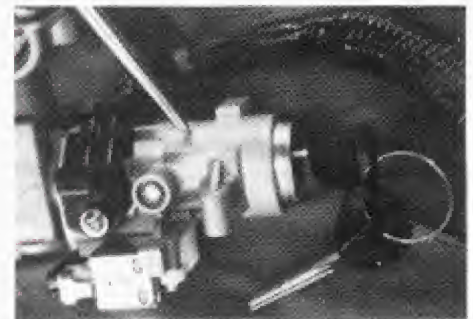


12. Although it's a tight fit, the housing can be maneuvered away from the column.

needed to key it up. While there wasn't a code on the ignition housing, one did appear on the cylinder. Codes were also available on the gas lid/trunk release levers lock, and the door and trunk locks. (There is no glovebox lock.)

Two changes are apparent in removing the cylinder from the

housing. It is still necessary to turn the key to the "ACCESSORY" position and depress the retaining button. However, unlike other Honda models or previous year's Civics, it is not necessary to remove the key interlock safety switch. (See photograph 13.)



13. The retaining button is easily accessible both in and out of the vehicle. Note: key interlock safety switch, directly behind, does not have to be removed.

Also changed is the steering lock/buzzer activator lever. Normally this is part of the cylinder, and held in place by a spring, ball bearing and a metal cover that slips over all of them. On this version, however, the lever is part of the housing and no longer part of the cylinder.

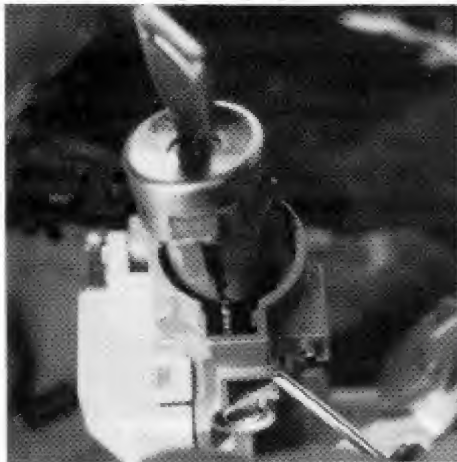


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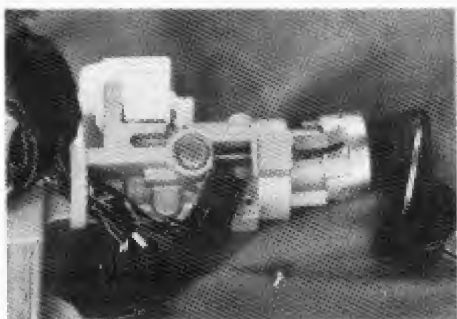


So, to remove the ignition, I turned the key and depressed the retaining button. The ignition slid only half-way out, however. The steering lock/buzzer activator lever is seated in a channel that stops near the end of the cylinder. When the ignition is pulled out to this point, the lever needs to be pulled down and away from this channel in order to clear the end, allowing the cylinder to be removed. (See photograph 14.)



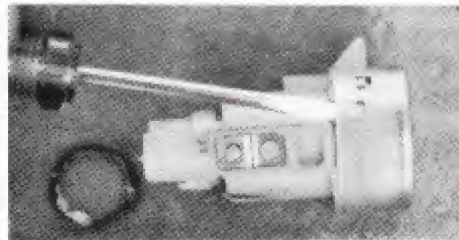
**14. Pulling the steering lock/buzzer activator lever down to remove the cylinder.**

While it isn't too difficult to hold the lever down with a small screwdriver, it may be easier to reach after removing the buzzer switch. Removing the switch leaves plenty of room for the lever to be grabbed with a needle nose pliers. Be careful removing the switch, it is a microswitch and it is very delicate. (See photograph 15.)



**15. The lever is clearly exposed after removing the buzzer switch.**

To disassemble the cylinder I removed the E-ring on the back of the plug. Then, after releasing 3 small tabs, I removed the cylinder facecap. The plug slipped out the front of the cylinder and was rekeyed using the Auto Security Products A19-104 pinning kit. (See photographs 16 and 17.)

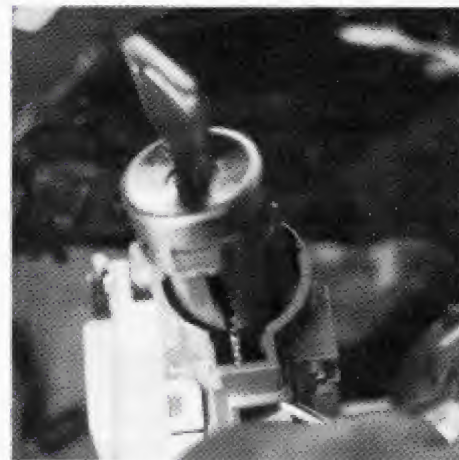


**16. After removing the E-ring, 3 small tabs must be lifted to release the facecap.**



**17. The cylinder with facecap removed.**

Putting the cylinder back into the housing required that the steering lock bar again be pulled down far enough for it to slip past the end of the cylinder and seat in the groove that it follows. (See photograph 18.)



**18. As with removal, the lever needs to be pulled to for the cylinder to be reinstalled.**

With the cylinder in place, I mounted the housing to the column and reconnected the wiring.

The door lock was easily removed. Taking down the door panel required the removal of only three screws. The lock is retained in the door handle by a simple wire clip. (See photographs 19 and 20.)

Once removed the lock is easily serviced. There is no facecap to worry about. Removing the snap ring on the back of the pawl allowed the plug to slip out of the cylinder. The lock contains tumblers 1 to 7. (See photograph 21.)

Like the door lock, the trunk is also very easy to service. Located on

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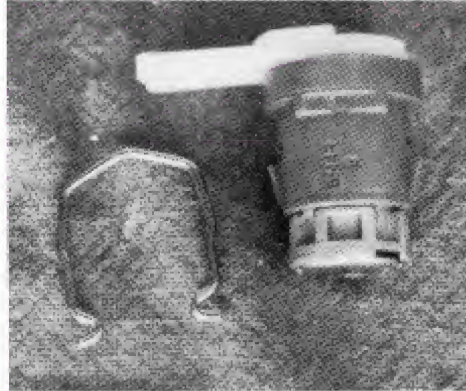




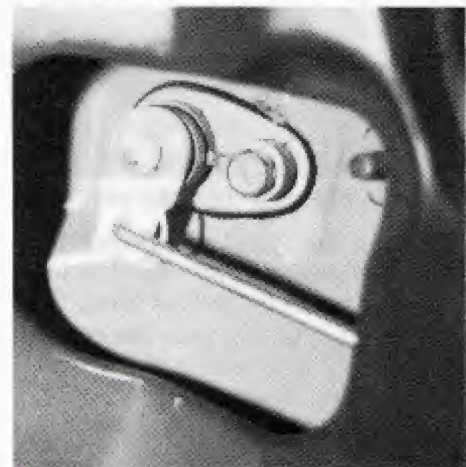
19. There's plenty of room to work on this door.



20. The door lock is held into the handle with a simple wire clip.



21. The door lock removed.



22. The trunk lock is held in with one bolt and is easily removed.

the bottom part of the passenger side taillight, the lock is removed by removing a single retaining bolt and sliding it out into the trunk area. (See photograph 22.)

To service this lock, carefully pry the facecap off, it is reusable, and remove the snap ring on the back of the pawl. The plug will slip out of the cylinder. The lock contains tumblers 2 to 8. (See photograph 23.)



23. The trunk lock removed.

Compared to other '92 autos, Civic is an easy and enjoyable car to service. But "wait till next year, right?"§



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by Jack Roberts

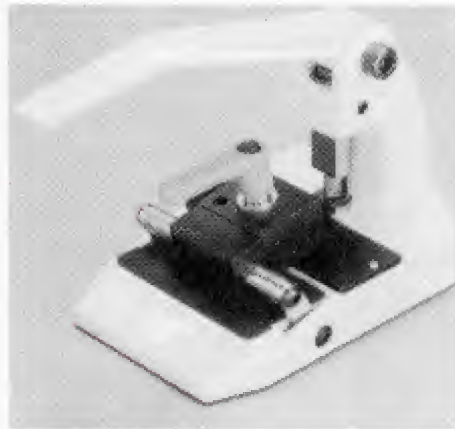
## The Handy Cut By ASP

*How does 7" x 4" x 5-1/4" and less than four pounds strike you? You just don't get much smaller than that!"*

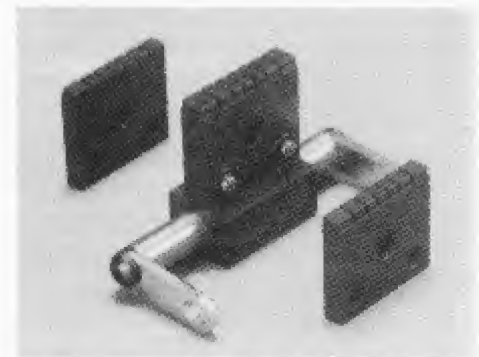
**I**n the years that I have been writing for *The National Locksmith* I have spent many anxious days and weeks awaiting the arrival of a product for review and evaluation.

The wait for the TMM TU-1000 key machine has seemed almost like an eternity as we have looked forward to actual hands-on use of all the neat features that we have heard about this compact duplicator-code machine from Japan. (See photograph 1.) Did I say compact? How does 7" x 4" x 5-1/4" and less than four pounds strike you? You just don't get much smaller than that!

Billed as the "Handy Cut," the reversible jaws (see photograph 2), of



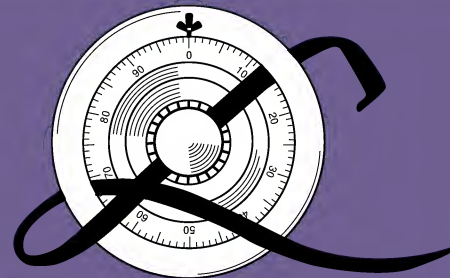
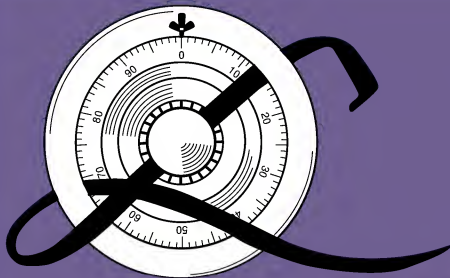
1. The TMM TU-1000 compact machine.



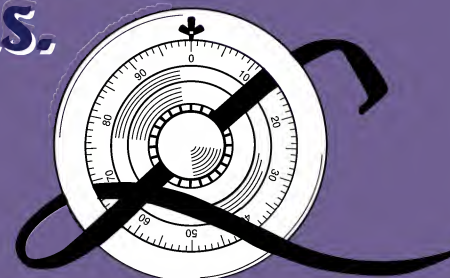
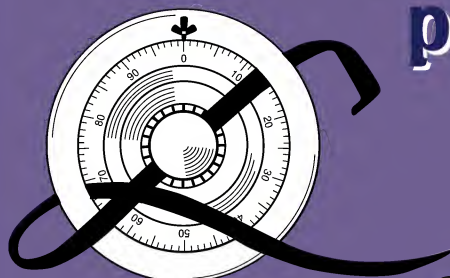
2. The "Handy Cut" reversible jaws.

*Continued on page 42*

the TU-1000 permit duplication of virtually all foreign and domestic



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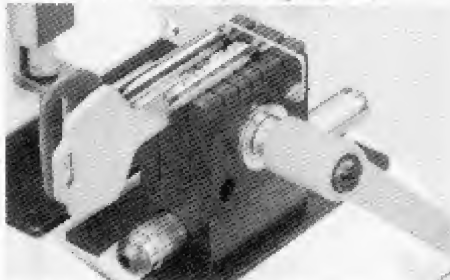


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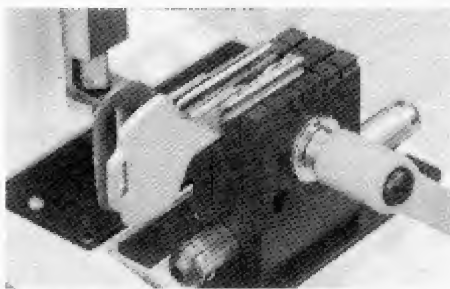
single and double-sided automotive keys, and a wide range of domestic commercial and household single side keys. And, with the optional parts kits, keys by code can be made for most all foreign and domestic autos as well as the more popular household keys.

The vise jaws of the Handy Cut have been engineered to utilize either shoulder or tip stop settings as may be required and keys may be entered from either the right or left side. If you will think back to your very early days of locksmithing when you may have clamped a cut key and a key blank together and then filed to the correct depths you have a general idea of how the Handy Cut operates. This is similar to the over and under vises used on some key machines.

The key vises are slotted for placement of the tip stop, which for duplication, may be inserted in any slot that is convenient for the type of key being duplicated. A pattern key and a key blank are placed in the double vise, and set in position by either tip-stop (see photograph 3) or shoulder stop (see photograph 4).



3. A key placed in the tip stop...



4...and in the shoulder stop.

The base of the Handy Cut is manufactured to accept a "level plate" for either auto-cycle keys or the household-commercial keys. These level plates insure that a key blank is properly positioned laterally under the punch cutter. (See illustration 5.) The punch cutter serves as the stylus as well as the cutter. The first cut of the pattern key is moved into position on the punch cutter, held in place with one hand while a firm downward push of the lever with the other hand gives

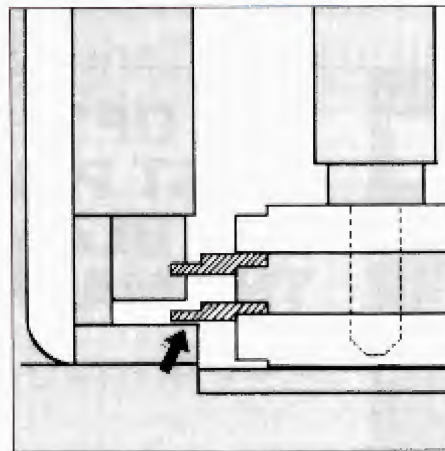


Illustration 5: The base of the Handy Cut. Note the "level plate."

a nice clean cut on the blank. (See photograph 6.) The next cut is moved into position and the operation is repeated.



6. A firm downward push cuts the key.

Note that the cutting operation does not require a slam-bang or a beat-pound, but, rather, just a firm downward pressure. It would appear that a tremendous amount of engineering went into the development of the Handy Cut in order to make a simple, easy-to-use key machine with very few moving parts.

Duplication of double side keys is accomplished in the same manner as explained for single side; just flip the blank over, set the stop, tip or shoulder, and repeat the cutting operation. The key vises do need to be reversed for double side keys but they are plainly marked and easy to set up. (See illustration 7.)

Placement of pattern keys and key blanks from either the right or left side is determined by the flat side of the key as already seen in illustration five. Proper positioning is critical for the accurate duplication of any key. The owner's manual gives a complete list of the more popular blanks with the direction of insertion, right or left, and for code cutting, which slot to use for tip stop.

All key machines have their

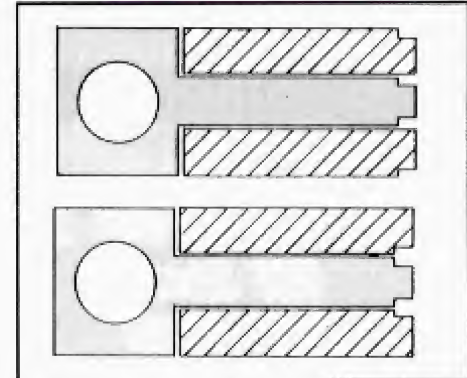
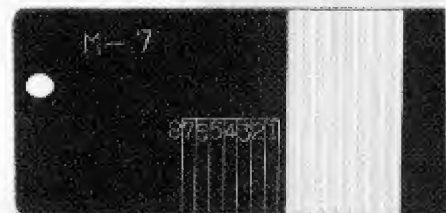


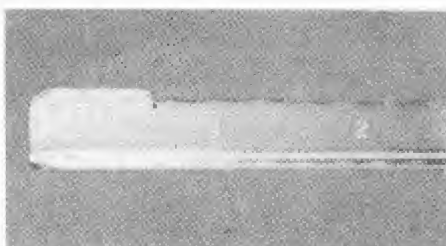
Illustration 7: Key vises, top for double-sided; bottom for single-sided.

limitations and the Handy Cut is no exception. It will not duplicate *all* keys, but the range that it will duplicate is wide enough to make it a very desirable addition to a service truck equipment inventory.

Duplication is about as easy as you can get. Now, let's look at the many innovative ideas that have been incorporated in the Handy Cut for use as a code machine. As mentioned already, optional kits are available for code cutting. These kits contain special "code plates" (see photograph 8) and "code bars" (see photograph 9)



8. A special code plate...



9...and code bar included in the kit.

for various manufacturers, along with front and rear vise jaws.

If you are familiar with one well known clipper, you can think of the code plate as the carriage and the code bar as the camset. Note on the code plates that there are concave grooves and numbered lines. These grooves and lines correspond to the spacing of the key to be originated.

There are two ball bearings located on the back side of the rear jaw. (See photograph 10.) These balls fit into the



## Automotive Locks...

## All-Lock Ignition Service

*"In this article we will examine the 1415, 1572 and 1573 automotive locks for Ford and Mercury cars."*

All-Lock Co., Inc. is a progressive company dedicated to producing quality products for the professional locksmith. One case in point is All-Lock's announcement of many new products at the 1992 National Locksmith Suppliers Association Conference. These new products are as follows:

1415 and 1415U Ford 10 Bitted Ignition Lock; 1572 and 1572U - 1573 and 1573U Ford Trunk Lock. Also new are five Service Kits.

A6700 10 Bit Ford door service kit; A6725 Ford 10 bit door lock face cap, tailpiece and dust cover assembly assortment kit; A6200 Chrysler double bitted service kit; A6750 foreign car cap kit; and A6800 Toyota tumbler kit.

Finally, the A7000F Foreign Lock Service Manual is a reprint of the 1984 "classic" on the subject of foreign car lock service.

In this article we will examine the 1415/1415U, 1572/1572U, and the 1573/1573U automotive locks. The 1415 Ford 10 bit chrome ignition fits the 1990-1992 Ford Taurus and the Mercury Sable automobiles. This ignition comes completely assembled and ready for quick installation. The professional locksmith would use one of several methods to remove the old ignition and then install the new All-Lock 1415.

The 1415 is also available in an uncoded version part number 1415U. The locksmith can service the 1415U with an All-Lock A6100 Ford 10 bitted ignition service kit. The general steps in utilizing the 1415U for the Ford Taurus and Mercury Sable is as follows.

Remove the old ignition. Like most late model Ford products, this is done by turning the lock to the "run" position and using a scratch awl or ice pick to depress the retainer pin through the access hole in the column casting.



The All-Lock Model #1415



The 1572 Ford trunk lock

Pin the uncoded 1415 by inserting the precut wafer tumblers into the tumbler slots. (Precut tumbler part numbers are: A6101 through A6105). All-Lock tumblers are numbered the same as the OE parts. A6101 = a #1 tumbler, A6102 = a #2 tumbler, etc. Use the original car key as your guide. Insert tumbler springs (part number A6106). Install the tumbler spring retainer (part number A6107). The retainer snaps into place; it does not need to be staked. This makes for an easier installation. It's one example of

All-Lock's innovative thinking when it comes to lock service.

Install detent springs and pins in housing unit. Install detent pin ring on lock cylinder. Install lock core into the housing and turn approximately 90 degrees counter clockwise to the "run" position and then push down retainer pin. Install buzzer switch. This can only go on one way. It snaps into place and requires no staking.

Insert complete lock cylinder assembly into the steering column and turn the ignition to the lock position. This seats the retainer and completes the installation.

The 1572 Ford trunk lock (black chrome) fits the 1990-92 Mercury Cougar (without the anti-theft system) and the 1990-92 Ford Thunderbird (without the anti-theft system).

The 1573 Ford trunk lock (chrome) fits the following automobiles: 1990-92 Lincoln Town Car with anti-theft system; 1990 Lincoln Continental with anti-theft system; 1990-1992 Ford Taurus; and 1990-1992 Mercury Sable. Both the 1572 and 1573 are complete Ford trunk locks ready for installation.

Both Ford trunk locks (1572U and 1573U) can be serviced with the All-Lock A6000 pinning kit and the A6725 Ford 10 bit cap kit. Locksmiths will use the A6726 face cap for the 1572U and the A6660 face cap for the 1573U. The steps involved in using these uncoded locks are as follows:

1. Insert bottom pins, top pins and then the pin springs into the lock housing. The scalp and dust shutter are pre-installed.

2. Stake pin retainer onto the housing unit securely.

3. Install the assembled trunk lock into the automobile.

For more information contact any authorized All-Lock distributor or: All-Lock company, Inc., 900 Ravenwood Dr., Selma, AL 36701, Telephone (205) 874-9001, Ext. 219. §





by Shirl Schamp

## Shirl On Car Opening

*"If you just study the car you are confronted with, you'll find a few different ways it can be opened."*

**T**his month we are going to continue our running discussion of various car opening methods. My idea with these articles is to point out that you do not necessarily need a fat book filled with the makes and models of every car on the market. All you need to do is learn how to approach the car from different angles. After all, there are probably at least three different ways to open each different car. The easiest one for you in a given situation is the way to go.

In the past, I myself have written car opening books telling you how to open each individual make, model and year. But I found that this job was becoming very redundant. I was repeating the same methods over and over for many different cars. That's why I am writing these articles. Just *look at the car you are confronted with*. Learn to see all the opening possibilities and you'll never worry about looking up that car in a book.

Many cars feature a lift handle instead of a button assembly to open the door. Often you can lift up on the handle and pass a tool into the cavity under the handle. Then you can catch the linkage with your tool. In order to make a tool that will do this job for you, use spring steel rod, no larger in diameter than one eighth inch. I often

find that some of my car opening tools are made of this material, and are only shaped on one end, leaving the other end unused. In that case, you can just make the required bend on the handle end of another car opener.

What you want to do is to place a sharp bend on the end of the tool, making a little hook which will just fit around a piece of linkage. (See *illustration 1*.) If you feel the overall width of the hook is too wide to fit through the opening under a lift handle, you can narrow it by grinding the sides. This will make the rod diameter smaller on the hook. Just don't weaken the hook too much.



Illustration 1

If you raise the lift handle, you will usually see an opening alongside one of the hinges. (See *photograph 2*.) Insert the rod through this opening. (See *photograph 3*.) After entering, grab the linkage rod with the hook. This can easily be achieved by inserting the tool as far as it can go. The inside wall of the inner panel will stop your tool.

Move your end of the tool either forward toward the front of the car, or



2. Look for opening beside the hinges.



3. Insert rod through handle opening, back toward the rear, depending on which side of the linkage you are positioned. The tool will slap the button linkage. You can see this by watching the button...it will jump. Now pull the tool out toward you, hooking the linkage. Twist a little to apply torque and lower your end of the tool, raising the end with the hook. Photograph four

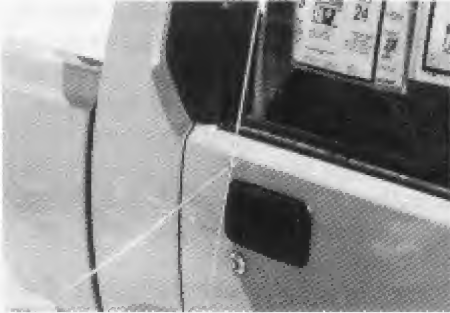


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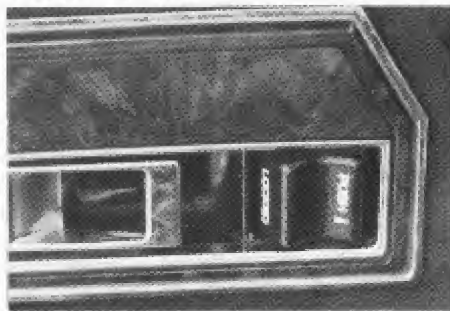


shows what this would look like if you could see into the panel. Raising the hook end raises the linkage, opening the door.



4. Simulation of tools inside door.

Another situation I want to address is the Chrysler products using the rocker button on the inside panel. Photograph five gives you a good detail of the button. Photograph six shows that the button is mounted far forward near the dash. To open the car, place a wedge between the window and door, about 10 or 12 inches back from the front of the door.



5. Detail of the Chrysler button.



6. Button mounted near the dash.

Insert your horizontal lock tool and find the backside of the rocker button. Photograph seven shows the approximate position. Remember the button does not work in an up and down motion. It works from side to side. The end of the linkage hooks into the bell crank coming up from the bottom. The rod runs horizontally and at the tip turns up 90 degrees, in and through the rocker button.

This means that if you apply too much pressure with the tool, you can disconnect the linkage. If that happens,

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7. Approximate position of rocker button.



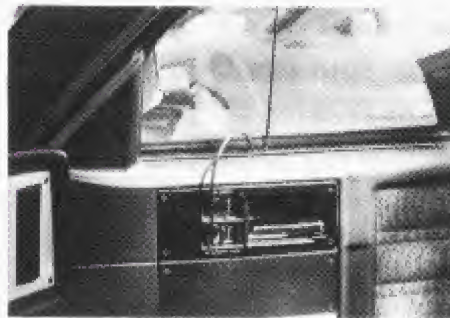
9. Inserting the tool into the door.



8. Wedges properly placed in the door

withdraw from the door, and open from the other door, but be gentler. After gaining entry, you'd have to remove the door panel on the other door to reconnect the linkage.

Car opening would be much easier if you could just project or beam yourself



10. Contacting the lock switch.

into the car. Well, a good method of opening to do almost that exact trick, using a tool designed to go under the window glass, then appear inside the car. One caution, though. If you ever get one of these tools stuck in the door, *do not force it out*. Instead, use a

different opening method. Then remove the panel from the door with the stuck tool and free it up. That won't often happen, but someday it could.

The first of these tools that I remember came out designed to open the Chevy Beretta which had been hard to open before the tool. After that, however, longer versions of the tool were made to work on other cars including S-10 pickups, and Buicks, Cadillacs and Oldsmobiles using the slide locks.

Start by placing two wedges in the door between the glass and the weather strip, as in photograph eight. Leave enough room to comfortably pass the tool between the wedges. Insert the tool down into the door as in photograph nine. When the tool is deep enough into the panel to clear the bottom of the window glass, turn the tool a bit and raise it a little, then remove the two wedges. This will relax the glass enough to pull the tool up and out the other side of the glass like you see in photograph 10.

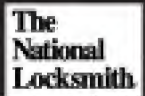
Turn the tool so that it is pointed inside the car and position it so that you can manipulate the button from the inside. All you'll have to do it to rotate the handle slightly to move the button. §

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by Dale Libby

## Installing The X0-7

*"This lock comes with the specialized tools you will need to do an installation. The tools you provide are simple ones."*

One of the biggest "hits" of the 1991 ALOA show was the Mas-Hamilton booth. This booth featured the new X0-7 electronic Group I combination lock on a series of locked Plexiglass containers. After dialing the lock open, you could remove a cap and keep it as a souvenir.

Just in case you are not familiar with this lock, I will give a brief overview of the unit. I will then tell you about installing or retro-fitting this lock. This will not be a step-by-step installation, but rather a general commentary.

The Mas-Hamilton combination lock is a giant step into the future of locks. It is electro-mechanical and self-contained. To operate the lock, one spins the dial to produce an electrical charge that powers an LCD (Liquid Crystal Diode) readout and a stepper motor in the combination lock.

One does not have to count the turns to operate this lock. Briefly, if the combination is 20 left, 40 right, and 63 left, then one starts turning the dial left until 20 is shown, then reversing the direction one would dial 40 right, after a brief stop, one would turn the dial until 63 shows on the readout, and then turn the dial to the right until the bolt retracts.

It is simple and clean. There are three levels of opening procedures used and I will discuss them very briefly. The first is single combination.

In the single combination mode, one combination is dialed and the unit will open. This is like a standard combination lock. Each time you turn the dial in another direction the internal computer chip will pick a new starting number on the dial, so opening the lock will sometimes be very quick and sometimes will take a little longer. This is a security feature. More, in a minute.

In the dual combination mode, two

combinations must be dialed in. Either combination can be dialed in first, and the next one must follow within 40 seconds. If done properly, then the bolt will retract.

The third mode is the Super/Sub mode. When the lock is programmed to this feature, a supervisor must dial his master combination. After doing this, subordinates can use their second combination to open the safe during business hours. When the supervisor dials in his combination again, the other combinations will not work. This safe lock also has audit features. It will tell the operator how many successful combinations have been dialed and how many unsuccessful combinations have been tried (more than three). Because of the advanced electronic circuits, manipulation and machine or robotic dialing can be discerned. The combination lock cannot be dialed open with these methods. Also, whenever the dial is turned in the opposite direction, a new starting number is employed, so back dialing cannot be used.

Here is a numeric example. Let's use 25, 50, 75 as a combination. You turn the dial Left until 25 is shown in the LCD window. When you start turning the dial to the right the first time, 86 can come up on the LCD readout. If you try this combination again, from the beginning, when you start turning the dial to the right, 42 might come up.

Each time the direction is reversed, a new second number starting place is picked at random by the lock's "brain." This is why machine manipulation or back dialing will not work!

Included with the combination lock are detailed instructions for installation and servicing and an excellent instructional video tape. This tape is divided into three

sections. The graphics and animation on the tape are exceptional. This video is a must for anyone selling or installing the lock.

Part 1 is the actual overview of the combination lock along with some history of mechanical locks in the past. Then there is a high tech view of the X0-7 lock with some comments by the inventors and owners of the patents. These are all prestigious men in their own rights and winners of several awards for design.

This is a slick presentation showing how the lock works and the security features it entails. It is a hard sell to the customer, and it works. I have shown this portion of the video to three potential customers. They want the lock. The video helps overcome price resistance to the lock. It costs more, and it does more.

Part 2 of the video covers the care, feeding and combination changing of the unit. This is also for the customer. Unlike mechanical locks, this unit does not have a forbidden zone, so there are a true 1,000,000 combinations available. It is also customer friendly, so by following simple instructions, anyone can change the combination. The third part of the video is the most important to the safe technician, describing how to install the lock quickly and easily. It takes you through a thorough step-by-step installation. I watched this third part three times before I did the job.

The installation instructions are excellent, but actually seeing it done is worth more than the mere written word. The first time you install one of these combination locks, the video should be viewed.

The new X0-7 locks may come without a video, but one will be supplied for those who have not previously installed one.

**Installation.** This lock is a Group 1R combination lock. It cannot be



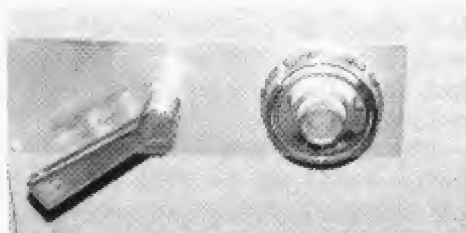


manipulated open. First, one needs a safe that is worthy of a retro-fit like this. I used a Major record safe.

This lock comes with many specialty tools needed to install the lock. Included are a special hacksaw for cutting inner and outer steel tubes, a deburring stone, spacers, Allen wrench. The tools that you have to supply are minimal: a hacksaw, two phillips screwdrivers, a vise, and a pencil.

Photograph one shows the standard handle and lock configuration. The lock is a 6730 S&G 3 wheel lock.

Photograph two shows the inside



1. The 6730 S&G handle and lock.

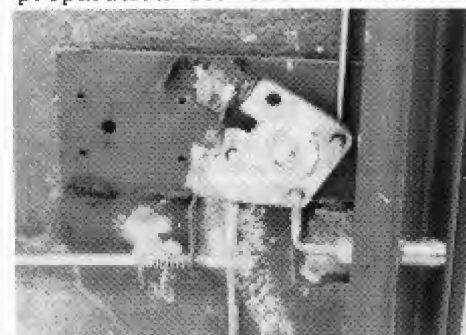
factory configuration of the lock, bolt, and relocker arrangement. Unfortunately, when retrofitting this safe, it was not possible to save the relocking device, for the strap could not be mounted to the case cover of the X0-7 lock.

Photograph three shows the



2. Inside of the S&G lock. Shown are lock, bolt and relocker.

relocker removed. The dial ring has also been removed. This is in preparation for the installation



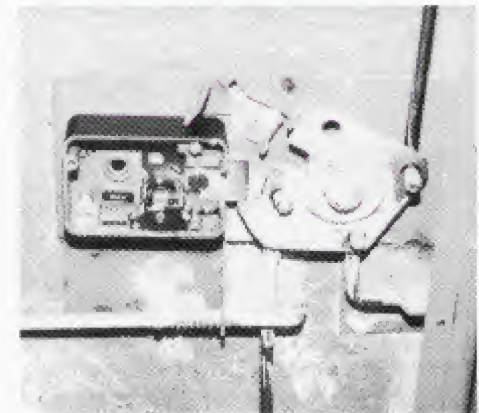
3. Lock shown with relocker removed.

sequence.

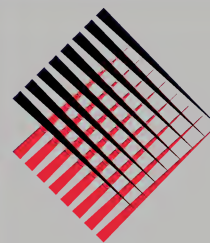
Photograph four shows the inner case of the X0-7 mounted after the spindle tubes and wires have been installed.

Photograph five shows the front of the safe with the two wires from the combination lock body coming through the inner and outer spindle tubes. The LCD readout mechanism that these wires fit into is not shown.

In photograph six we have the finished installation. It cannot be seen in this picture, but the electronic change key hole aligns with the standard S&G change key hole on the



4. Shown mounted is the inner case of the X0-7 lock.

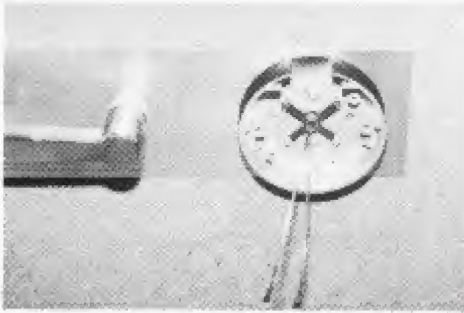
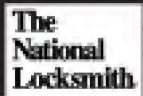


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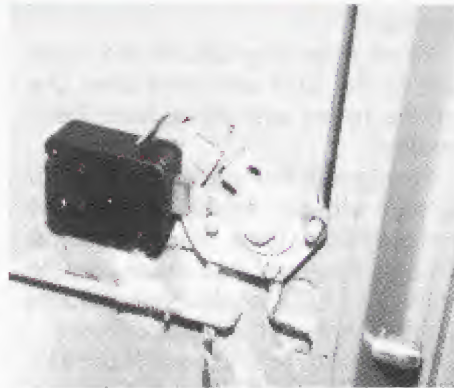


**5. The front of the safe. Note wires from the combination lock coming through inner and outer spindle tubes.** back cover. This is nice when one re-installs the back metal plate to the door. The hole in the door plate matches up the with change key hole in the new lock. Pretty slick.

Photograph seven is an outside view of the finished installation. After changing the combination from the factory original, the unit worked great.

Every lock has a serial number. This number is written on the cover of the lock on a computer chip. This number is a special number to allow you to reset the combination should you ever lose or forget the correct combination.

Without boring you, by using the serial number, you can get the lock to a position where you can choose the



**6. Inside view of finished installation.** mode and set the combination correctly. I tried this, and it worked easily.

**Changing the Combination.** I am not going into the three modes of changing the combination, but I will point out one incredible feature of the lock. It is made for people who may inadvertently mess up while changing the combination. For whatever reason, the first time I attempted to change the combination, I didn't enter the numbers I wanted. The lock flashed these new numbers to me three times. I then realized that these numbers were not the ones I wanted. Thankfully, you are required to confirm the newly set combination by dialing it in again, before it will be



**7. View of finished installation.**

accepted by the lock. I did not do this, so the new (incorrect) combination was rejected. I then reset it correctly.

**Failsafe.** What happens if the lock's electronics fail? With this lock, if you do not know the combination, you will not be able to dial the unit open. Also, if the unit fails, you will have to drill. This is the same on any lock where the combination will not work, except you will not drill into the lock body. There are no wheels to see or move.

The only way to open one of these locks would be to drill for the combination lock bolt and remove it by whatever means available. The lock cannot be serviced. Electronically Open and Prosper! §

For more information contact: Mas-Hamilton, 805D Newton Circle, Lexington, KY 40511, (606) 253-4744.



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# STOPPERS



*The National Locksmith* magazine would like to welcome you to this year's ALOA show whether or not you are attending in person. In this section of Showstoppers you will find products, many of them brand new, to be exhibited this month in Baltimore.

Along with a photograph of each item is a brief description and a Rapid Reply number. If you are with us in Baltimore, please stop by the booths of those manufacturers who interest you. If you

are not making it to the show, circle the appropriate Rapid Reply numbers on the Rapid Reply card in the rear of this magazine. That way you'll still get information about these products.

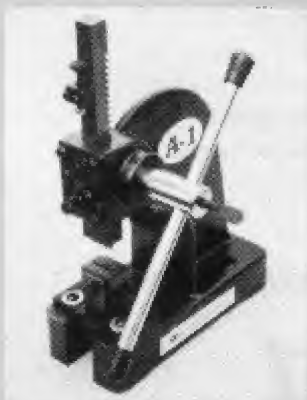
Of course, not everything to be exhibited at the show would fit here, so be aware there's a lot more to see. To the best of our knowledge, the booth numbers on page 81 are accurate. However, some of them may change after we've gone to press.

**This year, come visit the staff of  
*The National Locksmith* magazine at Booth #814**

## A-1's Capping Press Plus

A-1 Security Manufacturing Corp. manufactures the Capping Press Plus for interchangeable cores. Unlike any other capping press, the #CAP1 can also be used to dump the pins and springs from cores. The company believes that the #CAP1 is affordable, without sacrificing quality.

Accessories are available which allow the press to cap Peaks® 140 spacing.

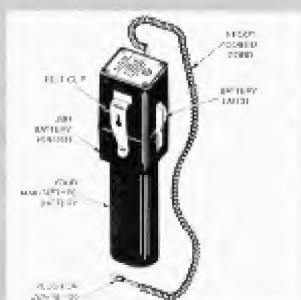


Circle 206 on Rapid Reply

## AAA Products' Battery Holder

AAA Products International has introduced a new product in the field of car opening. The Jiffy JBH Battery Holder, with a belt clip, allows the locksmith to use his rechargeable Makita® and Makita® look alike tool batteries to operate the Jiffy SL-120 Super Light for looking into unfamiliar car doors.

There are two models of this battery holder. The JBH-7 is for the 7.2 volt, 5-1/2" long Makita® battery, and the JBH-9 is for the 9.6 volt, 7-1/8" long Makita® battery.

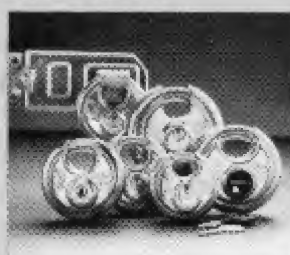


Circle 207 on Rapid Reply

## Abus' Original Diskus Padlocks

Abus Lock Company offers the Abus Original Diskus Padlock line which consists of six unique models and sizes. The features of this padlock line include a stainless steel body, hardened steel shackle that is highly pick resistant in design, minimizing attacks by bolt cutters, saws, files, etc. Each padlock is laser welded for superior strength and carries a lifetime warranty.

Abus also manufactures two sizes of hasps and staples that are designed specifically to provide maximum security when used in conjunction with the Diskus Padlock



Circle 208 on Rapid Reply

## Accredited Lock Carries Gardall

Accredited Lock Supply Co. carries the full line of Gardall safes, that includes the traditional dial safes, in addition to the new option of electronic digital keypad controls. The digital keypad can be retrofitted to almost any safe in their line.

Also new from Gardall is their line of gun and pistol safes. There are two sizes of gun safes, with capacities ranging from 9 to 30 guns. Both sizes are also available as 4-shelf all purpose safes or completely empty.



Circle 209 on Rapid Reply



### Briggs Features New Artwork

New trademarked artwork has been designed to promote the weather resistant and higher security features of Briggs & Stratton Technologies locks. Briggs & Stratton Technologies manufactures certain locks with a weather resistant shutter door over the keyway opening. The shutter protects the keyway and tumbler mechanism from water that can cause corrosion or freezing.

Briggs & Stratton has also introduced a low cost line of high security lock mechanisms for industrial and recreational applications. Sidebar Security™ is the trademarked name that describes this new product line.

automotive quality

**WEATHER RESISTANT™  
LOCKS**

BRIGGS & STRATTON TECHNOLOGIES

### Buddy Products' Hanging File Lock

Buddy Products introduces their new confidential hanging file lock box, designed to secure letters, folders, diskettes, cash and valuables, and important documents. It features an innovative locking design which prevents unauthorized access and removal from your file drawer. For added security the locking mechanism will also accommodate a small padlock.



### CCL's Sesamee Padlock

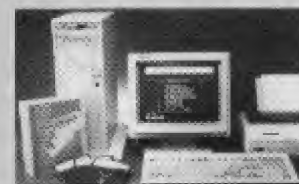
CCL's most famous padlock is the Sesamee combination padlock. The Sesamee is the original keyless resettable padlock. The user of the Sesamee padlock may reset the combination quickly and easily at any time to a three or four digit personal combination number which can easily be remembered. The internal locking mechanism of the Sesamee padlock is constructed entirely of brass material with phosphor bronze and stainless steel springs.



### Continental's New Software

Continental Instruments Corp. has introduced CardAccess® 450 software. When used in conjunction with any IBM compatible PC, CardAccess 450 software offers users the advanced Access Control features found only in large systems, with the ease of operation associated with a PC.

CardAccess 450 is a DOS-based software program that combines state-of-the-art features such as distributed processing, with the size and strength to control as many as 500 readers and 50,000 cardholders.



# NATIONAL

## AUTO LOCK SERVICE, INC.

**National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.**

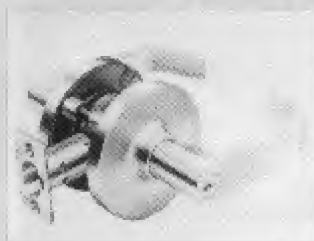
[www.laserkey.com](http://www.laserkey.com)



### Corbin Introduces Lever Options

Corbin Architectural Hardware now offers the 800 series heavy duty lever lockset with an optional high security cylinder and extended backset latches.

The high security cylinder option can be keyed to existing Corbin high security master key systems. The extended backset latches are available in 3-3/4" and 5". The 800 series lockset and all options are available through authorized Corbin distributors.



### Corkey Names Sentry As OEM

Corkey, a world-wide manufacturer of card access locks has combined with Sentry to produce hotel in-room safes.

The Sentry In-Room safe utilizes a Corkey lock, and may be opened only with a properly magnetically-encoded card. If a card is lost, rekeying can be done in seconds, and cards may be encoded on the premises with over 4 billion possible combinations.



### Detex Introduces Thriftlock™

Detex Corporation introduces the new ECL-8010 Thriftlock relatching exit control lock that provides protection from unauthorized use of emergency exits. While allowing unimpeded emergency exit from inside, the ECL-8010 contains a high-decibel, directional alarm that sounds when unauthorized use of the door occurs.

The battery-powered, microprocessor-controlled Thriftlock is well suited for remote applications where AC power is not available and absolute reliability is a must.



### Don-Jo Adds Display Board

Don-Jo Mfg. has recently added a new display board to its product offering. The "fight crime display" contains three of the fastest selling items designed to add security and strength to any door it features informative, easy-to-read descriptions to educate the consumer, and function as your "silent salesman."

Made to stand alone on the counter or hang on a peg board the "fight crime display" is a must have for any store selling security accessories.



***Don't panic!  
We have Security  
Exit Devices.***

[Click here for more information](#)



### Door Controls' Electric Hardware

Door Controls International manufactures several models of panic hardware and fire exit devices that can be released electrically. Maximum security strike and latch are easily released by 12 or 24 VDC continuous duty solenoids drawing less than 400 ma current.

Models 1300 panic hardware and 1300 fire exit devices are available with the following options: SPDT and DPDT signal switches, LMS-lock monitor switch, and battery or remote powered emergency exit alarms.

A 120 push bar is supplied to compliment the technically advanced 1400 series electromagnetic locks.

Circle 226 on Rapid Reply

### DoorKing's 1215 Magnetic Lock

DoorKing's Model 1215 magnetic lock is their latest locking device. The Model 1215 has risen in popularity because the input voltage can be 12 or 24 volts, AC or DC, which eliminates the need for an external rectifier, according to DoorKing Marketing Director, Richard Sedivy.

The device is both vandal and weather resistant making it ideal for indoor and outdoor use. It requires only a few tools to install which makes it ideal for mounting on most doors and gates, and, because it operates with no moving parts, the Model 1215 is virtually maintenance free.

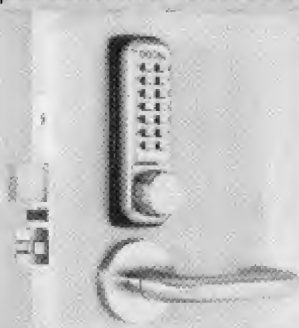


Circle 227 on Rapid Reply

### DSI Debuts Digital Cylinder

Door Systems, Inc. introduces the digital mortise cylinder, model 205M. The 205M is capable of interfacing with a wide variety of manufacturers' sectionally trimmed mortise locks, such as the Schlage® L-9000 series where it is adaptable to 12 functions. The Digital 205M is shown installed with the Schlage L9453P-03B (ANSI F20/FED 86A).

Perfect for new mortise lock installations, the Digital 205M can also easily existing mortise locks into heavy duty, mechanical, keyless, pushbutton access controls.

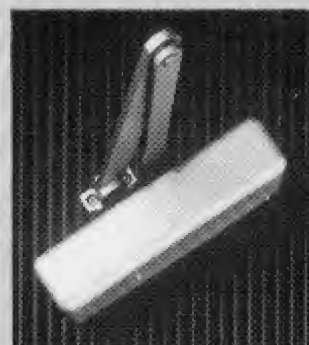


Circle 228 on Rapid Reply

### Dorma's Security Door Closer

Dorma's HS Series (HS 7800 and HS 83) minimizes the opportunity for tampering, vandalism or damage and abuse of the door closers. These high-security door closers are recommended for use in correctional facilities, financial institutions, government installations, schools or any where protection of door hardware is imperative.

Both the HS 7800 and HS 83 surface-applied closers use tamper resistant Torx® security screws for all exposed fasteners and utilize fixed-link arm assemblies.

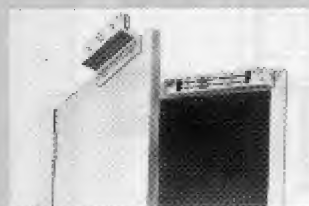


Circle 229 on Rapid Reply

### Dortronics Debuts 1-Piece Z-Bracket

Dortronics Systems has introduced the 1196 Series of 1-piece Z-Brackets for the installation of its TJ1100 Series of surface mounted electro-magnetic locking devices on inswinging doors.

The custom extrusion which includes reinforced angles for added rigidity, is available in three sizes to accommodate the TJ1106, TJ1110/1120, and TJ1115 Series armatures. It is furnished with thru-bolts and sex nuts for sturdy, durable mounting on wood, hollow metal, and aluminum doors and a supplementary armature mounting kit to meet variations in face of door and frame alignment.



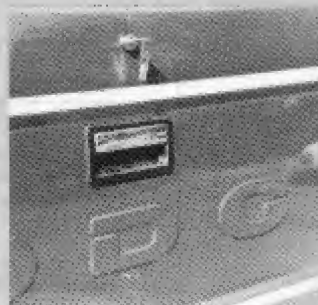
Circle 230 on Rapid Reply

### Doyle Presents New Tailgate Lock

Doyle Tailgate Locks introduces the LHL style tailgate lock for the Dodge Dakota. The LP300 uses the same quality design as their other tailgate locks.

Doyle Tailgate Locks mount to the tailgate of your truck and give an O.E.M. appearance, while leaving your tailgate protected and secure.

Doyle Tailgate Locks manufactures locks for most trucks.



Circle 231 on Rapid Reply

### Dugmore Expands Lockset Line

Dugmore & Duncan, a major stocking distributor of builders' hardware, announces their greatly expanded inventory of locksets suitable for compliance with ADA requirements.

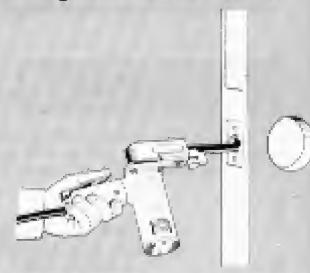
Included in this inventory are a mortise and cylindrical leverset manufactured by Sargent and a Yale cylindrical leverset designed to accept Best style removeable cores.

Circle 232 on Rapid Reply

### Dynabrade's Electric Dynafire® II

The electric Dynafire® II from Dynabrade, Inc. is a portable abrasive belt machine that performs grinding, deburring, and polishing operations in normally inaccessible areas such as door strike plates and door preparation. It is excellent for steel and wood doors.

A high-quality 2.5 amp electric motor powers abrasive belts 1/4" to 3/4" wide by 18" long. Other features include an ergonomically-designed motor handle, quick and easy changing of abrasive belts and versatile interchangeable contact arms.



Circle 233 on Rapid Reply





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### DynaLock's Deadbolt Lock

The 1300 series mortise electric deadbolt lock from DynaLock has a stainless steel deadbolt. It features fail safe, where the bolt extends only when power is applied and the lock is energized. Interruption of power causes the bolt to automatically spring retract. The narrow 1-5/8" backset is a compact design that allows for installation where most deadbolt locks cannot.

The lock mounts in header or lock jamb plus top, vertical, or bottom door stile when power is transferred to the door.

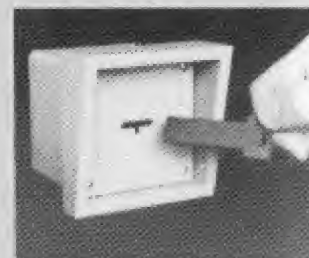


Circle 234 on Rapid Reply

### EMX Inc.'s Key Reader

EMX Incorporated of Cleveland, OH is introducing a new key reader, the CK20. This simple, but unique key reader does not need electricity for operation. It provides dry contact output for a variety of control boards.

This vandal proof unit is used in multiple dwelling, parking lot and other access control applications.

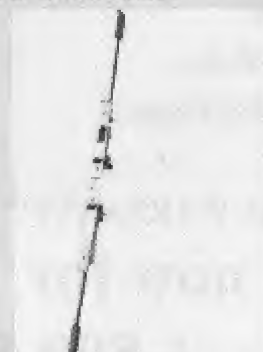


Circle 235 on Rapid Reply

### Glynn-Johnson's New Flush Bolt

New Glynn-Johnson FB9 and FB10 constant-latching flush bolts incorporate interchangeable face plates on a uniform heavy-gauge stamped body, to improve production and reduce inventory. In addition, a built-in deadlocking feature prevents manual retraction of the bolt from the strike when the auxiliary bolt is retracted.

The new flush bolts are available in two models: FB9, for use with metal doors, and FB10, for use with wood doors.

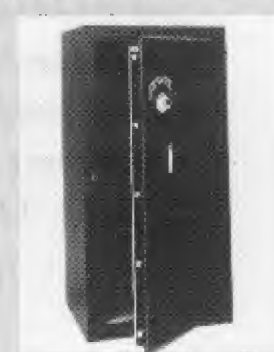


Circle 236 on Rapid Reply

### Granite Security's Gun Safes

Granite gun safes are the first and only safe available to be listed by U.L. specifically as a gun safe.

Key features include: firelined door and body, radius corner door design, bolt detent, anti-drive locking mechanism, certified hard-plate, 1 inch locking bolts, 5 coat high gloss metallic paint finish available in six colors, hand painted logo and door accents, elegant interior designs, lifetime warranty, and free replacement guarantee. Absolutely no factory direct retail sales.



Circle 237 on Rapid Reply



### Howard Mfg.'s Pressure Gauges

Determining proper opening/closing force for all types of doors has been an ongoing problem for many professionals.

ADA, (The Americans With Disabilities Act) the Uniform Building Code, ANSI Fire Door Code and Uniform Fire Code all contain specific requirements regarding door opening and/or closing force.

Howard Manufacturing Company's door pressure gauges come in two sizes. The larger of the two instruments tests door pressures up to 35# force, while the smaller one determines door pressures to 7#.

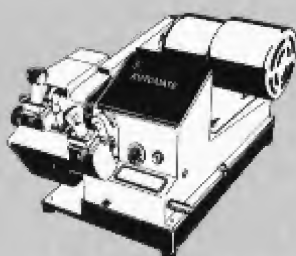
These instruments are accurate, inexpensive and pocket carryable.



Circle 238 on Rapid Reply

### HPC's Automate™ Key Duplicator

HPC's Automate™ is a fully automatic key duplicator. The completely automatic action allows for total hands-free operation. The entire cutting cycle of the Automate™ takes only 20 seconds. It has reversible jaws which allow it to cut a wide variety of keys. The spring loaded carriage assures consistent duplication. The machine is designed to cut accurate keys effortlessly. It is available in two different models 6666HQT (High Quality Tool Steel Cutter) and 6666HQC (High Quality Carbide Cutter.)

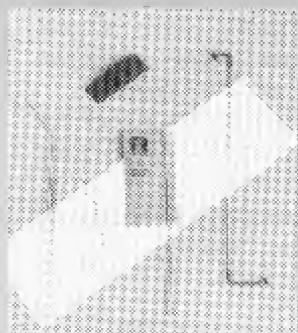


Circle 239 on Rapid Reply

### Triple Threat From Ideeuz

The Triple Threat, available from Ideeuz International, was created by Romaco Inc. Their knowledge and expertise in the lock-out industry led Romaco to package one each of their patented Wonder Tool, patented Zinger Slide-Lock Tool, and the new Invader.

The slim design of the Invader will eliminate the need to remove any moldings, yet the Invader still has the same Romaco toughness built into it.



Circle 240 on Rapid Reply

### Garda Collection From Italbrass

The Garda collection handcrafted in Italy in solid brass, is a new door hardware line from Italbrass.

Shown below is a sample of this simple and beautiful quality door handle.

All screws are concealed, and all roses are spring loaded to avoid sagging. Garda Hardware is available in passage, privacy, dummy, mortise, deadbolt or narrow lock functions.

Solid brass escutcheon plates are available with many of these lever designs.



Circle 241 on Rapid Reply



# ASP Covers the World of Auto Locks

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### Jet's Bulk Packed Key Blanks

With an ever increasing demand for key blanks packed in boxes of 250 versus the standard packaging of 50 per box. Jet Hardware has introduced their "250 Pack" program. Based on popularity of both home and auto keys, Jet has taken twenty-two of the numbers most widely used and boxed them in heavy corrugated containers.

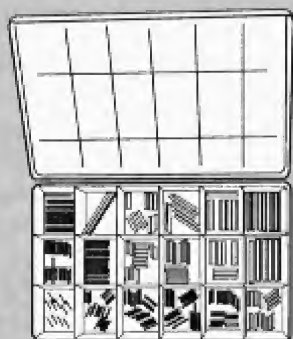
The "250" pack program uses the same "Ditto +" series key blanks which is found in their fifty per box.

Among the advantages that are to be found by customers who cut a volume of keys is inventory control. The other is a reduction of price to which is achieved by less handling and the use of one box versus five.

Circle 242 on Rapid Reply

### Keedex's New Roll Pin Kit

Keedex Manufacturing announces the new K-RP Roll Pin Kit. This kit contains an assortment of 18 different sizes of zinc plated, steel roll pins, most commonly used by locksmiths. Included are sizes 1/16" through 5/32" in diameter and 3/8" through 1-1/2" in length (18 different sizes in all, 480 pins total). All are packed in durable, 18 compartment plastic boxes. Re-order numbers are included.



Circle 243 on Rapid Reply

### Kenstan Lock's Cabinet Locks

Kenstan Lock & Hardware teams with Medeco to offer a high security line of showcase and cabinet locks. These include: cam locks, drawer/door deadbolt locks, springing snap bolt locks, standard plunger locks, security T-bolt plunger locks, showcase ratchet locks, and customized locks with Medeco cores.

Available in commercial or restricted/Biaxial key way. They offer keying customized to your specifications.

Circle 244 on Rapid Reply

### Key-Trak: A New Security Solution

Key-Trak was a well-kept security secret until its recent discovery by the Department of Defense and over 300 other businesses across the country. Now its application for many industries has security managers taking note.

Any business which allows employees access to keys has accountability problems. Employees are often negligent in returning keys to their proper place. This recurring problem results in wasted employee time, cost of key replacement, even theft.



Circle 245 on Rapid Reply

**medeco**<sup>®</sup>  
HIGH SECURITY LOCKS

**Integrity. Ingenuity....  
security solutions.**

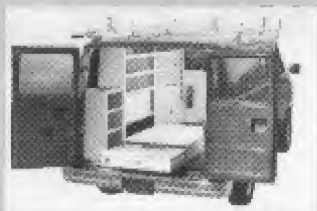
[Click here for more information](#)



### Knaack's New Van Storage Line

"A greatly expanded line of Weather Guard Van Interior Shelf units, drawer units, lockable cabinets, parts cabinets, bulkhead partitions, and van roof racks are available to fit all domestic full size and mini cargo vans, including '93 model Ford and Chevy vans. Components are constructed of heavy gauge steel with the white Armor-Tuf bonded plastic coating that resists chipping and peeling.

Modular integrated design features allow the professional craftsman to combine components into an interior package design that's just right for his needs.



Circle 246 on Rapid Reply

### Digital Time Lock From LaGard

LaGard Inc. has announced the introduction of a new digital time lock movement. It features full seven day programming, quartz movement, and full function digital display. All programming is done with the wind key. Turn the key to get each function flashing (days, hours, minutes) then "change what is flashing."

The product is the result of a joint development effort between LaGard and Ciposa Microtechniques of Switzerland.



Circle 247 on Rapid Reply

### Liberty Hard. Arch. Catalog

Liberty Hardware Mfg. Corp. announces that its new 80 page Architectural Catalog is now available. The new catalog launches a new era in Liberty's offering of Architectural products by adding new products not previously manufactured by the company. Included in these new additions are a vast selection of locks, some of which are with levers, removable cores, locks which meet handicap codes and many others.

Liberty's door closers, exit devices, cylinder latch and deadbolts, pivots, flush bolts, levers handles, offset arms and channels, hinges and many other items are also featured in the new, vastly enlarged catalog.

Circle 248 on Rapid Reply

### LCA's Multi-Lever Flat Key Lock

LCA (Lock Corporation of America) offers a multi-lever flat key locker lock that is the latest improvement in lever security. As many as 7 levers, including a master if required, restrain the solid Zamak lock bolt.

This patented construction provides an alloy-brass bank of staggered interlocking spring arms, constantly exerting a force on all levers. To open the lock, a precise cut key is inserted into the rotatable key guide which, in turn, moves the embossed, heavy duty latched levers which secure the bolt.

Circle 249 on Rapid Reply



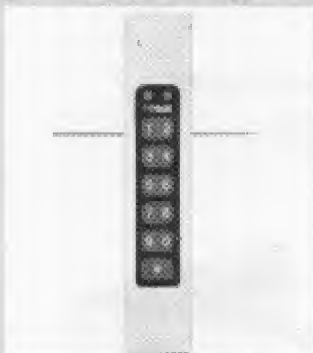
**HPC has it all :  
Key Machines, Software, Books, Car  
Openers, Pick Sets, Tools, Door Guards,  
and Key Cabinets**

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### **Locknetics 770 Smart Entry™**

The new 770 Series Smart Entry™ Access Control System consists of two major components: a heavy duty digital keypad and a versatile CPU controller. This system is compatible with virtually all electronic locking devices and is engineered for interior and exterior use. Designed with a narrow, low profile, the attractive keypad can be used in a myriad of applications. The versatile CPU controller offers multiple mode capabilities, programmed from the keypad.

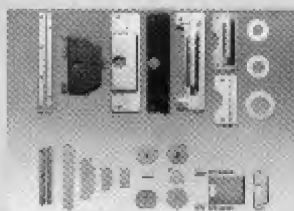


Circle 250 on Rapid Reply

### **MAG's New Latch Guards Line**

This complete new line of latch guards, adapter rings, scar plates, filler plates, adjustable extended lip strikes, and ASA strikes is packaged in the M.A.G. traditional approach. Many of these items have very unique features that make more universal application and easier installation.

This line is being introduced at up to 25% lower prices during the ALOA Convention, #721-723.



Circle 351 on Rapid Reply

### **Master Lock's Info. Display**

Informational, interactive and modular describe a display introducing Master Lock Tough, a new line of door lock hardware.

Featuring bold, crisp and compelling graphics, the merchandising system provides in-depth information on Master Lock's innovative features, including easy installation, high security, and the ability to be re-keyed to match any other brand of lock. Importantly, the display consumes a minimum of pegboard space.

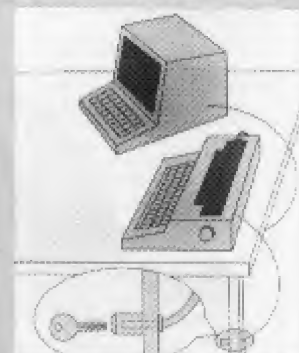


Circle 352 on Rapid Reply

### **Maxton Introduces Movable Locks**

Maxton Lock Company Inc. introduces the Maxton Cable Lock, a security device that guards against theft of office machines and small computers, yet allows the equipment to move freely.

The new Model M1C secures equipment with a 5-foot, vinyl-covered aircraft cable and pick-resistant, free spinning lock. Both the cable and lock attach to a desk or table leg to avoid drilling on work surfaces. The Maxton Cable Lock allows machines to be easily moved, yet provides maximum security.



Circle 353 on Rapid Reply

### **MDS Expands Diagnostic Line**

MDS Incorporated of St. Petersburg, Florida is happy to announce that they are back in the locksmith market with an expanded line of diagnostic products.

At ALOA, MDS will be demonstrating their new flexible borescope system as well as other new and unique locksmith tools. MDS invites all locksmiths to stop by their booth (no. 1037) and visit with Audrey Harris and Paul Butler.



Circle 354 on Rapid Reply

### **Medeco's Patriot Defends Security**

Medeco Security Locks, Inc. has introduced a new high-security lock program with its Patriot Tour '92.

This program gives locksmiths the advantage of a unique keyway, a simple yet tamper-resistant method of key control and key blank accountability, and a fast, efficient way to service customers.

The Patriot lock program uses a customer key control card to obtain key duplicates.



Circle 355 on Rapid Reply

### **Meilink's Gibraltar's**

It's no longer necessary to choose between burglary or fire protection for your records or valuables. Meilink's Gibraltar series gives you the double benefit of tool-resistant security and fire protection in one safe.

Meilink's composite safes, Gibraltar series, have a UL listed TL-30 burglary rating and UL Classified Class 350-1 hour rating. The thick high-security walls are constructed of heavy-density Protecto-Cel asbestos-free composite material. The massive 4 1/2" thick door resists modern high-pressure drilling and cutting tools.

### **National Security's Magnum Plus**

The largest safe offered by National Security Safe is the Magnum Plus. It offers all the features of the Magnum and is a foot taller and 4 inches wider and deeper for more storage capacity.

Standard construction includes triple-wall thermal insulation. The door has 20 locking bolts, 8 on each side, 2 on top, and 2 on bottom.

Available options include: gold plating on handle and lock dial, brass hinge caps, and brass safe lamp.



Circle 357 on Rapid Reply



### Paragon's Ignition Cut Off Switch

Paragon Security Corp. proudly reintroduces to the US Dealer Market the Magic Switch™. A passive ignition cut-off that protects your car. Features include: a valet mode and LED. The Magic Switch™ uses no toggle switches nor any push or tape switches. The switch is the driver.

It's easy to install and simple to use with the ability to interface with other alarm systems.



Circle 358 on Rapid Reply

### Prince Song's Key Light

The Good Luck Key Light from Prince Song International is very bright and easy to use. It fits most house and car keys and the ignitions on GM, Chrysler, some Fords and most foreign cars. The battery, which is included, is low cost and commonly available.

The key lights come in six colors, two each color per box of one dozen. An attractive display board is included.



Circle 359 on Rapid Reply

### Qualtec's PC Anti-Theft Product

Qualtec Data Products, Inc. announces their new heavy-duty anti-theft product that is ideal for security PC's, laser printers, facsimile machines, copiers and other office equipment. The HD 1000 secures equipment by means of two steel encasements; each measure 1.75 inches wide by 8 inches long. They can be placed under the equipment in any configuration, therefore giving the user the flexibility to secure any equipment and not obstruct ventilation.



Circle 360 on Rapid Reply

### R.B. Enterprises Supplies Monitor

R.B. Enterprises introduces the Monitor 4000 Security System. The Monitor 4000 is an anti-pilferage door alarm that is designed to work around the clock to prevent staff, suppliers, or intruders from using the back door or any security sensitive door without authorization.

Current monitor uses include many major fast food and chain restaurants.

Pilferage is a major factor in bottom line loss in most industries. Remember, no matter what kind of alarm you have, if it is not turned on, you might as well not have one.



Circle 361 on Rapid Reply



LOCKMASTERS  
SECURITY  
MANAGEMENT

TM

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for more  
information](#)

Providing quality  
tools, parts, and  
service for  
the security  
professional.

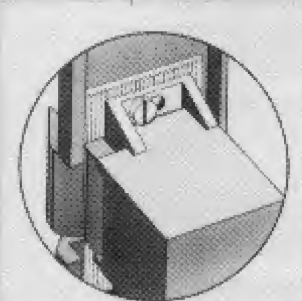


### Rutherford's Electric Strike

Made for rim exit/devices the Model 0161 electric strike from Rutherford solves the problems of Security, installation, and device universality.

Deadlocking is assured with the "Pullman" type latch and the ramp design is universal for deadlock triggers and pins.

The 0161 is non-handed, with two slots with cap screws for positioning. Two more cap screws secure the final location. Its furrow-type adjustment allows correction of misalignment without changing the original prep.



Circle 362 on Rapid Reply

### Safety Tech's Entry Stopper®

The Entry Stopper from Safety Technology International Inc. is a highly reliable alarm that is unique. It requires no installation of any kind. Just hang it inside on a doorknob...activate it...and leave. A 30-second delay allows easy exit. If anyone then touches the outside of the doorknob (even with gloves on). Entry Stopper lets the world know with a high-pitched alarm.

Because of its unique and patented design, it turns any doorknob into a highly sensitive security system. (Not for metal doors.)



Circle 363 on Rapid Reply

### C.E. Sanders Keyholder™

The Sanders Keyholder™ is a multi-purpose keyholder, from C.E. Sanders.

Keys slip on and off with ease - no broken nails. It clips onto belts, pants, swim trunks, pockets, purses, etc.

For pocket comfort, keys fold inside square and take up no more room than the keys themselves. It also organizes keys: house key on one side of square, auto key on opposite side. This makes them convenient to find when in the dark.



Circle 364 on Rapid Reply

### Sandstrom's Aerosol Alternative

Poxylube CP-200 lock lubricant is currently applied by aerosol. Now there's a new alternative. Now CP-200 is now available in bulk to be used in a refillable pump type spray container.

Poxylube CP-200 continues to keep key locks moving freely and protect the works from wear and corrosion.



Circle 365 on Rapid Reply

### S&G's Switch Lock

Trusted by major railroads for more than 10 years for securing railroad switches, Sargent & Greenleaf is now introducing its enhanced, freeze-resistant Switch Lock with new neoprene O-rings. The addition of the O-rings around the shackle holes of the padlock prevents water from entering the lock body and freezing.

S & G enhanced its patented lock design after need was expressed by a major railroad company for a padlock that would be easier to open after prolonged wet and freezing conditions.



Circle 366 on Rapid Reply

### Schlage Offers ADA Guidelines

Schlage is pleased to announce the availability of the Schlage door hardware guideline to the Americans with Disabilities Act (ADA). This four page ADA guide looks at the overall impact of the legislation on the commercial construction sector, compliance issues and deadlines, 1992 tax incentives, penalties and the Schlage family of ADA compliance solutions. Customers may contact their local Schlage representative and request a copy.



Circle 367 on Rapid Reply

### Secura Key's Entracomp 27SA

The Entracomp 27SA is a self-contained card access control system that provides more features for the price. Featuring the patented slotless Touch Card reader, it is protected from vandalism and weather and is suitable for outdoor installations in temperature ranges from -40 degrees to +160 degrees F.

The Entracomp 27SA has non-volatile memory that controls up to 8000 card holders and can store up to 2000 time stamped transactions for later printout.

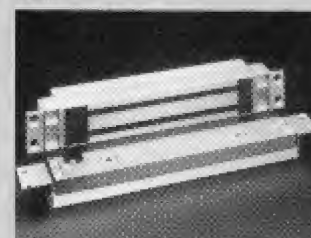


Circle 368 on Rapid Reply

### SDC's Hi/Shear Emlocks

The Security Door Controls Hi/Shear™ EMLock® is a patented locking design of special alloy steel. It is fully concealed in the header of a door frame, and combines the best features in fail-safe performance with the most advanced features in shear lock design. The Hi/Shear EMLock has surpassed 2,700 pounds tensile holding strength, and will withstand an attack that will deform or destroy a door.

Exclusive armature lateral alignment adjustment and built-in field adjustable auto relock switch are some of the unique features in this lock.



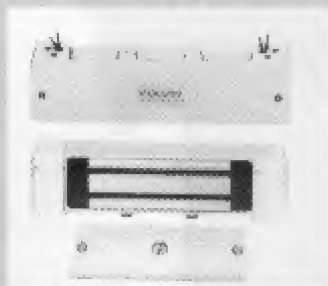
Circle 369 on Rapid Reply



### **Sentry Lok's Magnegard 9900**

The Magnegard 9900 series electro-magnetic locks are high-powered devices in attractively designed, rib-reinforced, unitized, and weatherized housings.

All models include as standard features: A green "Power-on status" LED light; a red "Locked Status LED light to indicate secure locking; a unique tamper proof armature sex bolt which resists wrenching in either direction; twin end junction boxes for wiring at either end; remote monitor capability for power status and locked secure status, as well as standard finishes.



Circle 370 on Rapid Reply

### **Sieveking Products Flashlight Holder**

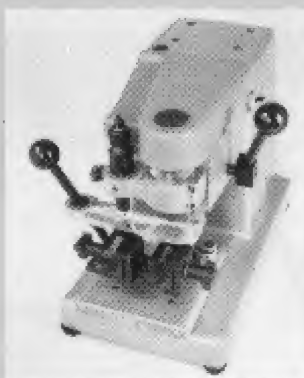
Sieveking Products Company introduces the JAKSTRAP™ device to aid the locksmith that is called to do service in low light situations. Using the Mini-Mag type focusing flashlight, the JAKSTRAP™ positions the light exactly where you want it. With both hands free, you can pick locks, impression keys, and open cars. Auto emergency repairs, changing tires and even camping, the Jakstrap holds the light when you need it most.



Circle 371 on Rapid Reply

### **Silca's Club Jr. Is Newest Addition**

Silca's Club Jr. is the newest addition to their line of top quality key machines. The Club Jr. duplicates all laser/sidewinder keys like those on Mercedes, BMW, Volvo, Infiniti and Saab; it has a variety of options available for other specialty high security keys. The Club Jr. holds adjusting tolerances as fine as .0015, which is important when duplicating high security keys.



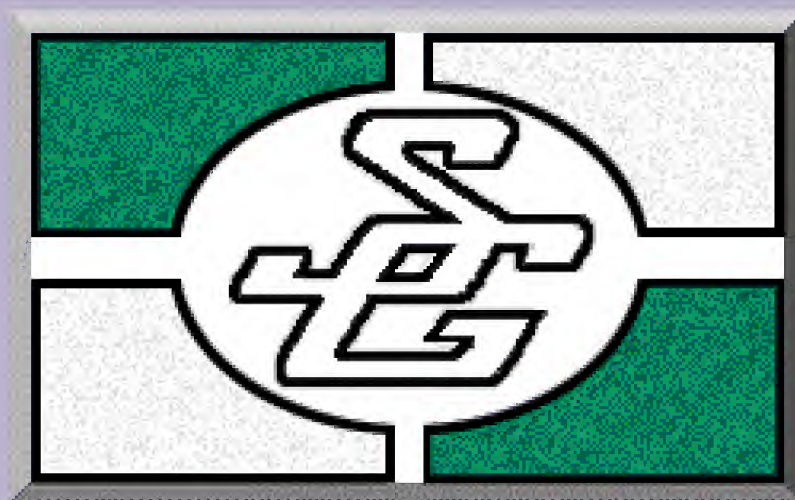
Circle 372 on Rapid Reply

### **Treskat Offers Free Software**

Treskat USA offers free demo disks on several of their best selling locksmith programs. These demos include CodeMaster the computerized code book Perfect Master IV for masterkeying, and Keyman the key blank cross reference and management software.



Circle 373 on Rapid Reply



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electronic safe locks for...security...  
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### Turn 10 To Display Racks

Turn 10 Wholesale will be exhibiting a display rack from Gardall and a display rack from Meilink that can triple your safe business.

It is proven that displays can triple your small safe business by creating point-of-purchase sales. This should be considered for your lock shop.

Circle 374 on Rapid Reply

### WD-40 Prevents Sticky Locks

Locks can quickly become sticky and rusty when exposed to moisture. But a light spray of WD-40 will free sticky locks and prevent potential build-up.

WD-40 is a water displacer, penetrant, lubricant, and rust preventative. It will lubricate and clean sticky lock mechanisms and seal the surfaces with a protective coating to prevent rust and corrosion.

As WD-40 displaces moisture from the metal surface, it creates an effective barrier that guards against future moisture damage.



Circle 375 on Rapid Reply

### West Coast Chain's Key-Bak

West Coast Chain, manufacturer of the Key-Bak and Mini-Bak key chain retractors announces their long-reach retractor. It features a 48" long stainless steel cable which has a breaking strength of over 95 lbs. and is of 7x7 strand nylon jacketed construction for maximum strength and flexibility. The spring retractor mechanism has been tested to over 100,000 cycles without failure.

This smooth running retractor is enclosed in a rugged steel case only 2" in diameter and weighs less than 2-1/2 oz. The Long-Reach Key-Bak is available in both textured chrome or black vinyl finish.



Circle 376 on Rapid Reply

### Willow Bend's Lockout Light Kit

A special "Lockout Light Kit" available from Willow Bend, has been designed to provide light inside car doors. It consists of an IC-3 Adaptor which directs light from a Mini Maglite AA™ flashlight through 2mm-diameter fiber optic strands, coupled with new SA-1 Shaft Kit, which uses butyrate shafts to make the optical fibers rigid, aids light placement inside the door. Suction cups are provided to secure the assembly to the window glass.



Circle 377 on Rapid Reply

# Major

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## Tool Review...

by Robert Sieveking

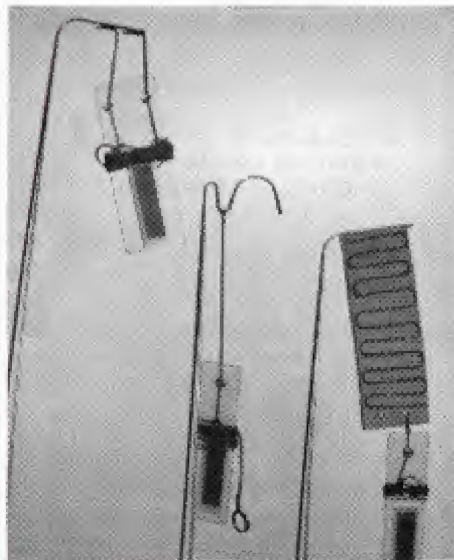
# Mule Tool Door Openers

*"These are a new set of manipulation tools designed to allow you to bypass the lock, and open from the inside."*

With the increased incidence of electronic locks, in commercial buildings and hotel/motel complexes, the challenge of emergency opening has advanced beyond the pick and tension wrench. Again, one ingenious locksmith rises to meet the the challenge. The "Mule Tool," patented by locksmith Bob Dyer, of Belmont, California, is a simple device that easily bypasses even the most complicated locksets.

Electronic locks and high security locks that are simply not economical to manipulate, present a serious challenge for today's locksmith. "Destroy the lock if you have to," is a typical order from the hotel manager, anxious to re-unite a valued guest with his luggage. What about the plant manager, at 6 a.m., who can't open the factory, because the electronics are "on the fritz again?" The only access is by a touch pad or card reader and electric latch. Sure, there is a lock cylinder in the door, but it was turned up-side down years ago, so no keys could be used to enter the plant. That was the last time the locksmith was called. The locksmith, that they "really didn't need," suddenly becomes the man of the hour. The above situations illustrate the fact that there are times when there is just no apparent method of entry, short of destroying the lock. The Mule Tool answers many of the "no other way" openings with a simple nondestructive opening technique.

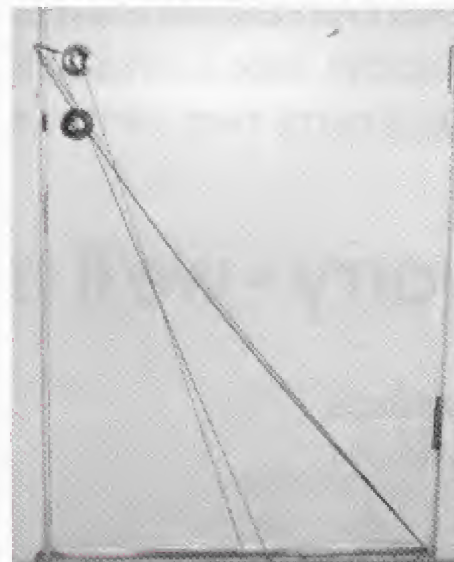
With a name like the "Mule Tool," you'd think it was something heavy, to "kick" the door in. The Mule Tools, shown in photograph one, however, are actually manipulation tools. Shown from left to right are the deadbolt tool, the emergency exit device tool, and the knob lock tool. These tools are designed to enter under the door, and manipulate the lock to the open position. We've all used the "under glass" tool, to open autos. The Mule



1. Mule Tool manipulation tools.

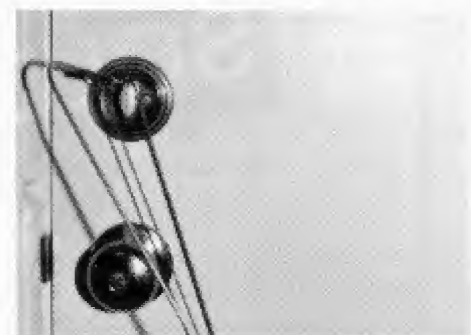
Tool is a logical extension of this concept. The special tips rotate and pull common lockset handles, to unlock or open doors. A handy video, included with the tools, helps you get started right. As with all tools, some practice may be required, to gain proficiency.

The deadbolt tool has two cords, as you can see in photograph one. The small cord controls the position of the tool, and the heavier cord manipulates



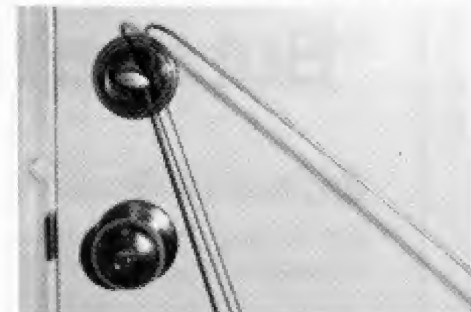
2. Passing the tool under the door

the turn button. In use, the tool is passed under the door, as you see in photograph two, and manipulated to pass the heavy cord over the deadbolt knob. (See photograph 3.) With the cord



3. Pass the cord over the deadbolt knob.

over the knob, the smaller control line is pulled, wrapping the cord around the deadbolt knob. At this point, a pull on the heavy cord will draw the tip of the rod to the turn button of the deadbolt. Further tension will cause the tip of the tool to follow the turn button around, as you see in photograph four, to withdraw the deadbolt. Manipulation of the tool, from outside the door, will take a little practice to complete in a timely fashion, but the tool works quite well. This tool is invaluable in the case of a lever type lockset. The clear plastic piece, that is shown under the door, is very important to the smooth operation of the tool. Brass grommets in the plastic, act as slip guides for the cords, to prevent them from fraying or being cut as they are pulled under wood or metal



4. Tension on the line moves the turn button, withdrawing the deadbolt.



doors.

The knob lock tool, was by far the easiest tool to use. Most commercial hotel/motel locks are single motion locks, which is to say, rotating the inside knob will retract the deadbolt and latchbolt together. The knob lock tool is passed under the door, as before. Turn the tip of the tool up. This prevents the tip of the tool from passing under a rug on the inside of the door. The tool is manipulated to an upright position, and positioned at approximately the center of the door. Draw the tip of the tool to the door, and pass the material band over the top of the knob. (See photograph 5.) At this



5. Pass band over and contact knob.

point, the bottom of the tool is moved to the hinge side of the door, and the material band wraps around the knob. Pull the cord, being careful to use the slip guide, under the door. The band will tighten over the knob, as you see in photograph six, conforming tightly to



6. The band is tightened over knob.

the shape of the knob with a non-slip grip. Pull the cord to rotate the knob, and open the door. Photograph seven shows a side view of the material band over the knob.

The emergency exit device tool will



7. Side view of unit positioned on knob.

work on push bars that push down and in. The hook is passed over the bar, and

the push bar is pulled down with the attached cord. It is simple and most effective.

The materials used in the construction of these tools is top grade. The cords are high tensile braided nylon, and the material band of the knob tool is a special resilient non-slip foam; truly high tech materials, for a low tech opening tool.

Bypassing the lockset, is a valid and professional method of opening locked doors. There are surely going to be a lot of locksmiths out there scratching their heads and saying, "Now why didn't I think of that?!" §

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## High Security...

## Peaks™ From Kaba

*"Peaks has patented key control and easily retrofits into the customer's existing door hardware."*

**L**ike many American companies in the 1990's, Kaba High Security Locks in Southington, Connecticut has repositioned itself to take on challenges of the hardware industry over the next decade.

A part of Bauer Kaba A.G. in Zurich, Switzerland, Kaba High Security Locks has a world-wide producer of high security cylinders and locking devices as its "partner" in the highly competitive security industry. Bauer Kaba maintains facilities in Switzerland, Austria, Germany, England, Spain, Japan and Australia, as well as the United States.

Kaba® products were first marketed successfully in this country when Bauer Kaba purchased the Lori



Kaba's full line of solid brass hardware.

Lock Company in Southington, Connecticut in 1977. "Bauer Kaba enjoys such remarkable success in Europe, it was natural for the company to purchase a U.S.-based firm," said Edward Murphy, president of Kaba High Security Locks.

Kaba®, Gemini™ and Nova® products secure many of the world's well known buildings like the Louvre Museum in France, the Swiss Bank World Headquarters, and The Singapore International Airport. Here in the United States, Kaba is installed in the Johns Hopkins Medical Center and the Wake Forest Law school among many other institutions.

*Continued on page 90*



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Continued from page 88

Recently, Kaba High Security Locks divested the commodity portion of their business in order to sharpen its focus on the proprietary products in the high security and decorative brass markets. "We're proud of the Swiss connection," Murphy said. "It adds sophisticated research and development capabilities and plain old stability." He added, "To reinforce this transition and to avoid confusion over the divested business we changed our name from Lori Corporation to Kaba High Security Locks."

Today, Kaba High Security Locks

manufactures under the brand names of Kaba®, Gemini™, Peaks™, Nova®, and Brassworks™. All products are made in a modern, fully equipped factory in Southington, Connecticut. Kaba Gemini, for example is a distinctively different security system with a reversible, dimpled key matched to a 16 pin cylinder which provides extensive keying capacity. It offers both the locksmith and security management personnel world class security; easily operational in both mechanical and electronic door hardware.

Late last year, the company launched Peaks™ into the high

security market. Peaks™ has patented key control and quickly retrofits into existing door hardware, eliminating the need to replace expensive locksets. Peaks will fit Best, Arrow and other interchangeable core housings, while providing an ideal solution for retrofitting standard cylinders on the same master key system. "We've given locksmiths the perfect solution for retrofitting interchangeable cylinders with absolute key control," Murphy said. "Now there's no need to replace hardware to obtain patented key control. No special key machine or special training is necessary."

Peaks™ blanks and cores are protected by two mechanical patents. Only the factory can make the cylinders and key blanks, and their distribution is restricted. All programs are based on contractual agreement between the locksmith, distributor and Kaba. The locksmith agrees to abide by the factory key control policies.



The patented Peaks key blank.

Each and every Peaks key blank is marked at the factory with a unique identification code and drop shipped directly to the locksmith. By contract, this code may not be altered or removed. Dealers agree to make duplicate keys only for systems they have sold.

Peaks keys are paracentric to increase pick-resistance and may not be clipped or punched. They can be made on standard code machines including Framon, HPC 1200CM, Ilco Universal and IITL. Duplicates can be made on most conventional key duplicating machines.

All Peaks key sections are new to the industry, and may be gauged from either the tip or the bow. The factory holds the stop tolerances closely, so a Peaks key may be code cut from the tip stop and duplicated from the bow stop, or vice versa. The tip stop registers a Peaks key in interchangeable cores, and the bow stop registers them in conventional cylinders.

Peaks offers two series of cylinder. Peaks 140 is a full line of Best-style

Continued on page 93



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Continued from page 90



Mortise, key-in-knob, and rim cylinders all key into one patent protected system.

interchangeable cores and conventional mortise, rim and key-in-knob cylinders. All Peaks 140 products are 6-pin with .140" pin-to-pin spacing. Peaks™ 150 products are interchangeable cores only, both 6 and 7-pin. They have .150" pin-to-pin spacing. To combine interchangeable core and conventional cylinders in the same keying system, .140 spacing is required.

One pin kit is used for all Peaks™ 140 and 150 products. Specific sizes of bottom pins and build-up pins are furnished as spool-type to increase pick resistance.

Peaks™ cores are pinned in the same way as Best-style cores. A2 system pin stack height is 23. A4 system pins are available and the stack height is 14. The patent chamber is built into the core at the factory, so the locksmith need only install the proper operating pins. Peaks™ 150 cores can be closed with existing Best-Arrow capping tools. For Peaks™ 140 interchangeable cores, the pinning method is identical but a Peaks™ 140 spacing core capping block is required. In a system that combines interchangeable cores and conventional cylinders, the control

key combination is ignored when pinning the conventional cylinders. The stack height for conventional mortise and rim cylinders is 19 and 15 for key-in-knob cylinders.

Uncombined conventional Peaks™ cylinders come sub-assembled and are top-loaded the first time. Thereafter, they are rekeyed with a Peaks™ follower. The proper technique is to turn the plug 180 degrees, withdraw the plug until the patent pin is visible, turn the plug off center and remove with the follower.

For the locksmith key sections, locksmiths write their own bittings and establish reasonable key control formalities with their customers. Registered factory systems can be ordered by sending a completed signature card with the name and address of the end user. Additionally, plastic card controlled product is available through Peaks™ distributors. Vouchers are used to authorize keys which are cut by the distributor.

The Peaks™ program is available through a variety of distributors of high security products in the United States and Canada. The company has been marketing to locksmiths and

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locksmith distributors for more than thirty years and feels it's positioned perfectly with its reputation for quality, service, and product innovation. Peaks™ is considered to be a breakthrough product that provides end-users with key control, economical installation, and an overall superior security system.

The Brassworks™ hardware line embraces solid forged brass decorative entry locksets and lever handle interior sets. "Again we aim for the ideal product for a given market," Murphy said. "Brassworks™ is a quality line of products destined for upscale homes, office buildings and commercial properties and it's priced right. We were determined to market a product that people can afford and yet the locksmith trade can develop and profit by." Brassworks entry sets are distinguished by a low profile deadbolt that offers superior quality and workmanship. Solid brass and steel locking parts add to their outstanding security.

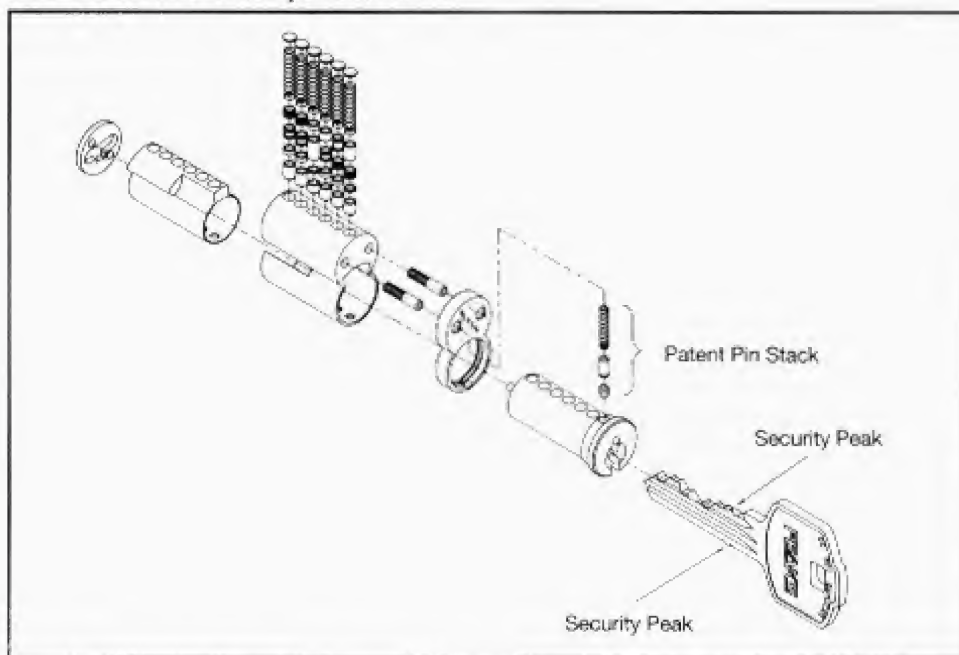
Brassworks exterior door handleset retrofits a bored deadbolt and lockset combination, no door alteration or new doors are required. The decorative line is stocked by a number of large distributors in the

lock supply trade. Information on the entire Brassworks line is available from Sharon Berry, Brassworks™ Marketing Director.

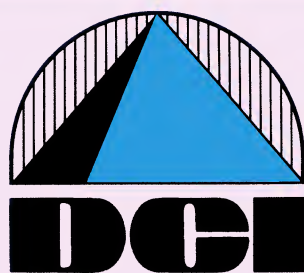
"We feel we've successfully repositioned Kaba High Security Locks," Murphy concluded. "We're a value alternative for the locksmith looking for high security key control and decorative brass products. We

offer dealers many ways to differentiate themselves in the highly competitive security industry."

For further information contact: Kaba High Security Locks, P.O. Box 490, Old Turnpike Road, Southington, CT 06489, (203) 621-3601. §



Exploded view of the peaks system.



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## Making Keys...

## Silca Keys In The U.S.A.

*"All Silca keys are produced to extremely rigid tolerances, closely duplicating the original specifications."*

**S**ilca Keys U.S.A., Inc. has recently celebrated it's third anniversary in the United States. They are a daughter company of Silca S.p.A. in Italy that is world famous for quality in both key blanks and key machines. The company history dates back to 1770, making it one of the oldest in the business.



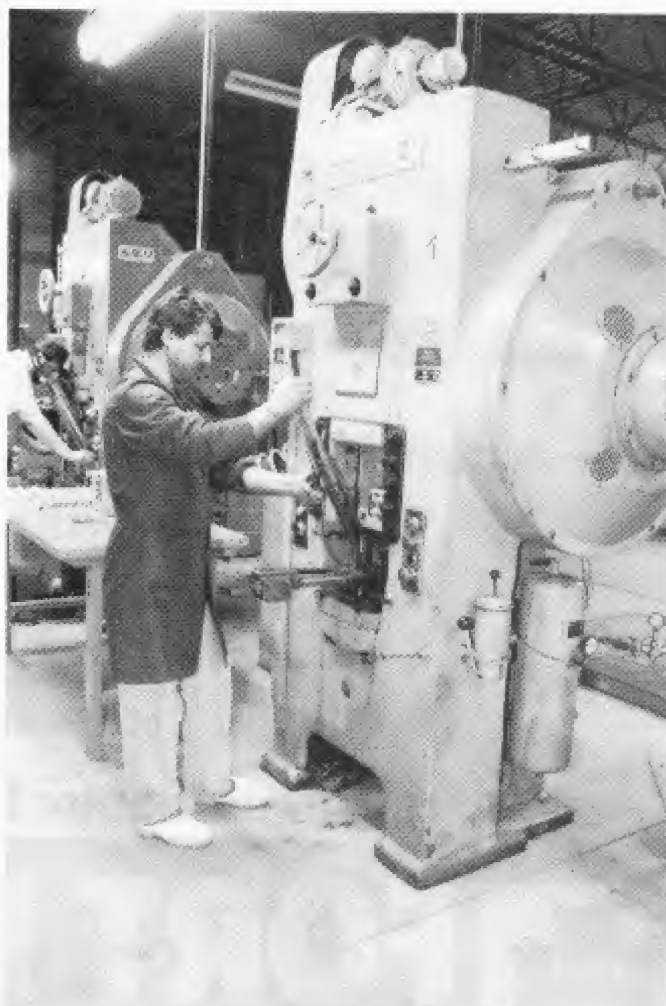
Silca staff includes (from left to right): Massimo Blanchi, President; Carole and Leslie; Dave Powell, General Manager; Barney Goldberg, V.P. Sales.

Silca U.S.A. manufactures in Twinsburg, Ohio and currently produces a top quality line of original-like keys under the brand name of *IMAGE* in addition to the complete line of automotive nickel plated brass keys and rubber headed keys they carry. A new line called *PRONTO* has also recently been released featuring the simple numbering system used by many businesses. Specialty keys are also handled from this facility.

All Silca keys are produced to extremely rigid



The Silca factory's quality, accurate milling machines.



High speed coining, deep struck, clear and crisp.

*Continued on page 99*



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A blanking press, stamping keys from strip stock.

standards as close to original manufacturers specifications as possible. Comparators are used throughout the manufacturing process to assure no deviation from the proper specifications in both material thickness and millings. Clear, crisp coining completes the process before the keys are burnished, plated or lacquered and boxed. All brass, nickel plated brass and nickel silver keys receive the same quality control.

Silca key machines are known all over the world for accuracy and durability. The BRAVO U.S.A. replaced the "ONE" that Silca produced for the American market. The CLUB cuts Laser/ Sidewinder and dimple keys and is the machine most requested by locksmiths all over the world because of its' simplicity and accuracy. The CLUB Jr. was released to duplicate the Laser / Sidewinder keys at a lower cost for those shops that want a dedicated machine. Other famous Silca machines include the REKORD, POKER, CROWN, CADET, GT40, SCOUT and the TS1 Stamper. In the rare instance that a repair is required the Twinsburg, Ohio facility can usually repair a machine within 48 hours.

Silca U.S.A. is growing rapidly and has recently expanded by adding a distribution warehouse along with additional production equipment and manpower. In the spring of 1992, Silca U.S.A. is adding their first series of commercial keys for the U.S. market along with a new catalog showing their expanded line. Plans are to continue expanding until they are able to offer

Continued on page 102



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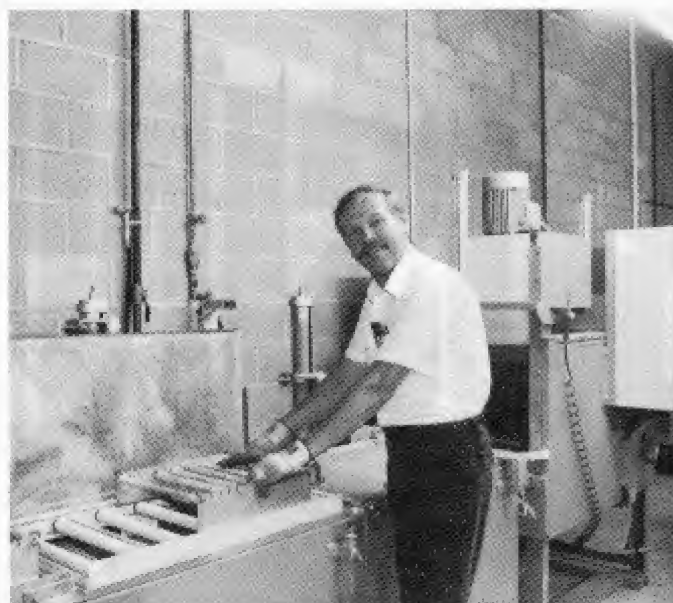
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Continued from page 99



Silca features quick order filling, usually within 24 hours.



Washing before coining or plating.

the total range of keys used in the United States .

Silca is continuing to make a very healthy investment in the American marketplace to assure the locksmith alternative sourcing for the highest quality machines and keys. The company is famous worldwide for their quality, service and support to the locksmith trade .

Silca keys and machines are handled by most of the locksmith distributors throughout the United States. Contact your local distributor for information and pricing. §



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by Brian Hignett

## Tubular Lock Impressioning

*"You can make a good impressioning tool from a small vise grips and a little dent puller."*

**R**adial pin or tubular lock cylinders can be impressioned using the same basic technique as would be used in impressioning an in line 5 or 6 pin tumbler cylinder. That is, binding the bottom pins at the shearline and moving the key to allow the tighter pins to mark the key first, and so on until the key turns in the lock.

The principle with tubular locks is the same, however the method of obtaining the marks on the key is different of course, due to the nature of the lock and the round or tubular key. To have good control over the key and to make the job easier, an inexpensive tool should

be made as follows.

Purchase a pair of 8" vice grip pliers (you may even have a pair in your tool box). From a body shop supplier, purchase a small panel dent puller. (I bought one for under \$20.00.) Cut the handle off the puller and weld the shaft, and collar supplied to the pliers as shown in illustration one.

You now have a tool that you will find very handy for at least two uses. (I guarantee you'll find a lot more.) It is ideal for removing tight spline keys from combination locks, particularly the Stafast floor safe, and of course for impressioning the tubular lock.

We now have to prepare the blank ready for impressioning; by the way only use brass blanks. Under no circumstances should you try this with a steel blank. Using a grinder or file, remove the external nib from the key, filing it flush with the tubular surface of the blank. (See illustration 2.)

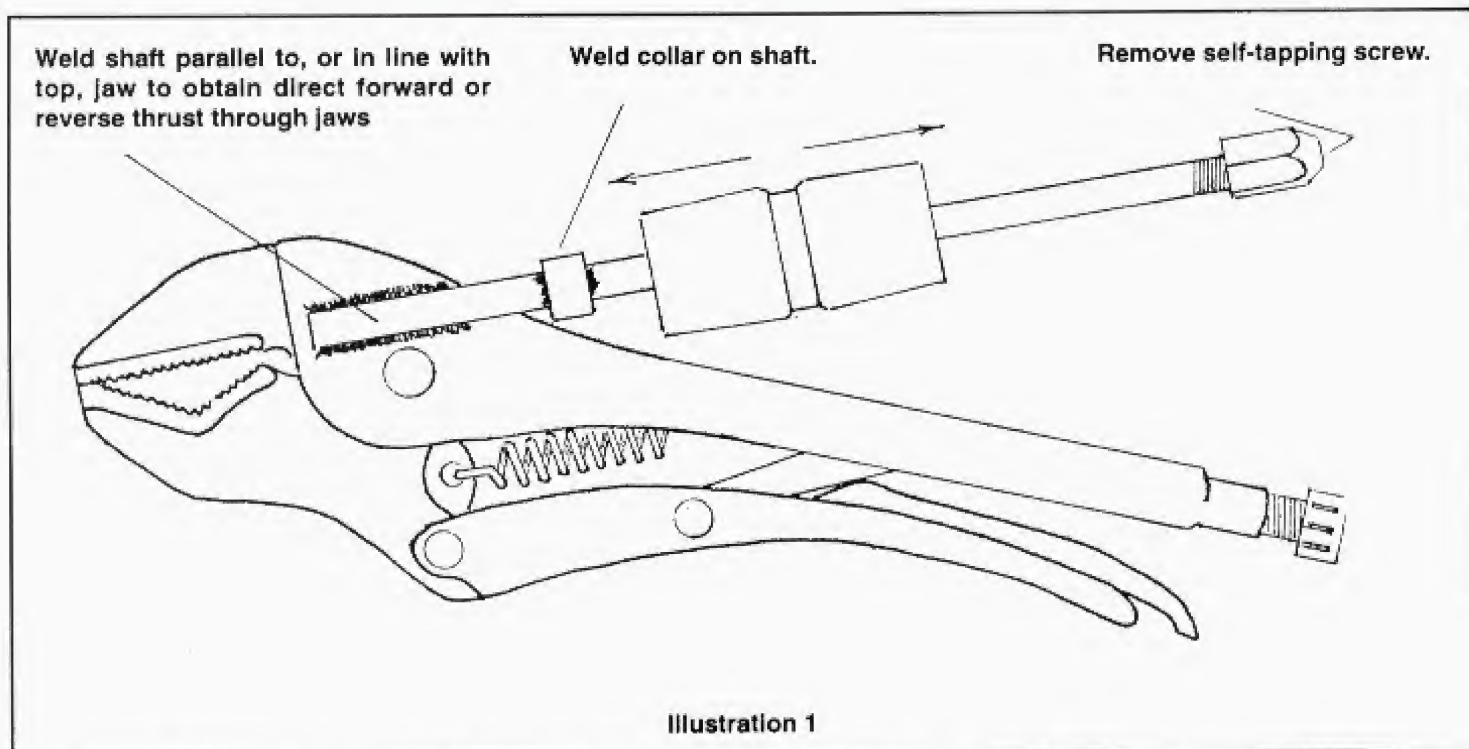
The next step is to prepare the tip of the key to receive the impressions from the seven pins. If you don't have access to a tubular key machine at the time, you can bevel the end of the blank all the way around carefully with a file at about a 45 degree angle. (See illustration 3.)

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However, it is much easier, and I certainly recommend that instead of bevelling the whole key, use a tubular key machine to lightly space up the key in the seven positions.

Then using a 6" file, carefully file in your shallow starting cuts, at approximately 45 degree angle to

the key blank. (See illustration 4.) The bevel or angle must not be too severe as a number 0 pin could be too low to start with. Without the angle or bevel on the key, the pin impression marks are very difficult to obtain.

Clamp the prepared key blank in

the vice grip pliers, and place the key in the lock, depressing the pins fully. Back the key out about 1/16" (1mm) and apply turning pressure to the pliers, which in turn allows the key to put torque on the center core, thus binding the bottom pins at the shearline. Keeping turning



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tools, parts,  
and service for  
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back too far before applying turning pressure, you will bind some top pins. These top pins combined with the bottom pins in the same chamber, will still mark the key, however with every stroke of the file you will be going too deep. We don't want this.

Examine the bevel or spacing cuts on the tip of the key and you will see where the tight pin or pins have left their mark. Using a 6" file, carefully file at an angle where the impression marks are. Slightly widen cuts, taking all the metal out, do not file too much at a time. (See illustration 5.)

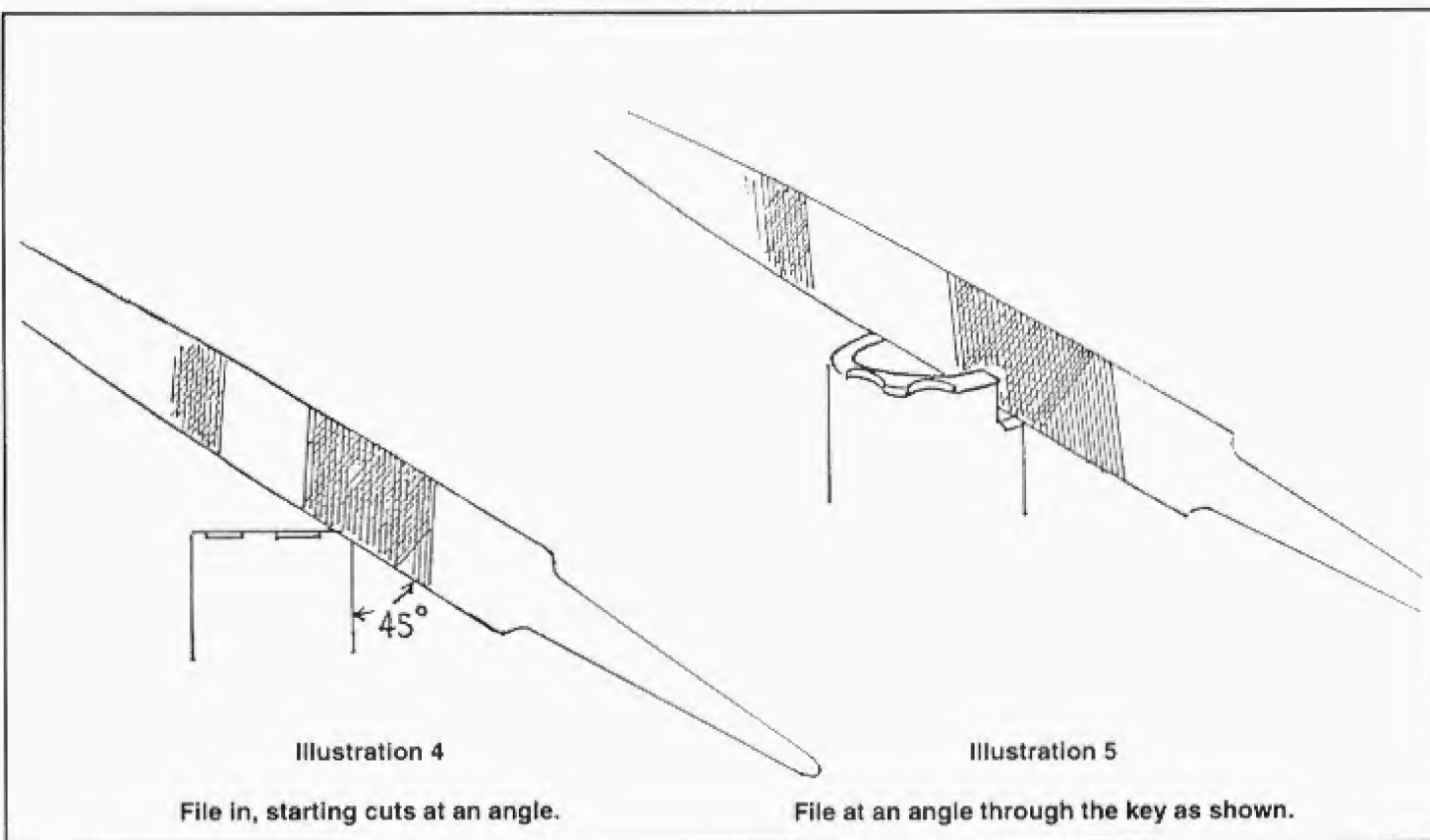
Place key in lock and repeat above procedure continuing to file until key turns. If there are no 0 pins in the lock, quite often the key will turn without having to bottom it out in the lock, because we have removed the external nib. Turn the key to the "halfway position," thus resting the pins between the pin chambers. The pins are now of course solid. Tap the key inwards, and excellent marks will indicate. File carefully until the key works when it is bottomed out in the lock. This is necessary if you are going to duplicate the correct key from your impressioned key. The impressioned key looks ugly, but can be decoded or duplicated on a tubular key machine to obtain an original looking key.

Impressioning these locks can be done without the pliers and attached slide hammer, by placing a screwdriver through the hole in the head of the key, torquing the key, and tapping it inwards with a light hammer. However the control you have over the key with the correct tool will assure you of much greater success, and its other uses, makes it certainly worthwhile.

Just keep repeating the action required to obtain the desired marks. Bottom key out, move key back a fraction, apply torque, slam, release pressure, back out a fraction, apply torque, slam, release pressure, back out, etc. Once mastered this is virtually a sure fire method of opening and cutting keys to a tubular lock all at once.

If a lock is tight or binding this drastically reduces your chances of picking. Mushroom top pins and varying tension springs found in the higher security locks, can also make

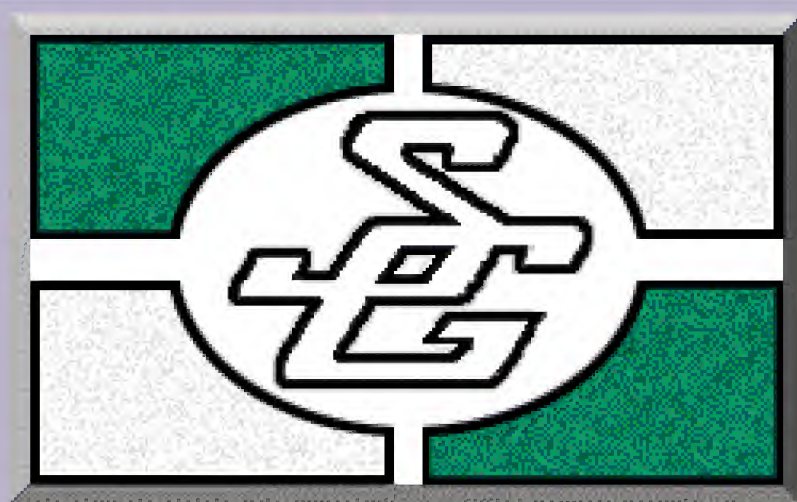




picking difficult if not impossible, but have no effect on the impressing process.

Make yourself a tool and with practice, you will probably never have to drill a tubular lock again! §

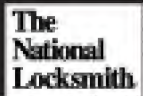
*The author, a new contributor, is a locksmith from Australia, where we also have many readers. G'day!*



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Carl Cloud is author of our *Guide To Drilling Safes* available through this magazine.

by Carl Cloud

## Safe Opening Procedures

*"Drilling open old or antique safes is often a 'play it by ear' process, but it should be one with a plan."*

Identifying old safes can be a challenge. Clues to the identity include the shape of hinges, the type and design of the handle and the model or brand of the combination lock. In addition, a good knowledge of the characteristics of older safe brands are essential.

Often, you'll see photos of unknown safes illustrated in the various trade magazines. The person submitting the photos is hoping to fill some blank spaces and certify a particular safe. It's hard for a safe technician to answer the question, "What brand safe is this?", with "I don't know."

A real fanatic in identifying safes and especially safe locks, is Dave McOmie, a technical writer for this magazine. He can rattle off model numbers of safe locks I've never heard of. His intense research has compiled a vast library of information and I have called upon his expertise more than once.

I wouldn't venture a guess of how many safes I've opened without having a clue to their brand or manufacturer. Let's face facts. There are many brands of old safes that had a very limited production. Many of these safes have never been documented in any of our safe manuals or reference materials. You may work on a safe and never see another one like it in a lifetime! Regions where the safes were built is another

factor. The older safes manufactured on the east coast are rarely seen on the west coast, and visa versa.

The need to know the safe brand isn't essential for the opening of a safe with a simple lost combination or lock malfunction. (Referring to older or standard safes; not the modern jewelry safes with glass relockers, etc.) Although, the first question posed to your customer with a safe lockout will be, "What is the brand of the safe?"

The answer to the question does one of two things. It will start the adrenaline flowing because you're not familiar with the safe, or it will signify a simple opening and you'll plan to do it before your lunch break. The answer to the question only determines the amount of time that should be allotted for the opening.

Drilling open an old or antique safe is often a "playing it by ear" process, but with a plan. That is, do all drilling under the dial ring so repairs will be concealed. An undetectable patching of a hole in the door and matching of the paint on an antique safe will be almost impossible. Most important, though, is to do all drilling slowly and deliberately. You don't want to jam or break any lock parts—chances are, you'll never find a replacement for the broken part.

In about 95% of the cases, a single hole drilled through the dial ring will

open these old safes. I pick a drill spot around two o'clock on the ring and angle drill slightly toward the center of the dial. A well placed hole in the lock case will offer a good view of all the wheel gates and sometimes even the drive cam gate. From here, it's just a matter of transferring to the drop-in of the lock and open the door.

About transferring: you don't need a calculator to add or subtract numbers to the drop-in. When you align the wheel gates to the drilled viewing hole, read the dial *at a center line of the hole*. Confirm the found combination numbers by running them again to this center line. When all of the wheel gates can be aligned perfectly at the drilled hole by using the found numbers, you are then ready to transfer.

To transfer the combination numbers, draw a line on the dial ring at the drop-in of the lock. (Such as 97 for an S&G or 80 for a Yale OC5 type lock.) Run the found combination numbers to this drawn line. The wheel gates will move from the center line of the drilled hole to the drawn line on the dial ring. If the safe doesn't open, draw a new index line one number up and/or down until the drop is found.

In photograph one you can see an old, locked cast iron safe. I didn't recognize the brand of this safe until I had opened it. Two clues should have

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triggered my memory: the absence of a handle and the mini compression bar at the edge of the door.

Photograph two shows the brass (seventy numbered) dial and the small compression device with its pivoting handle. Yes, those are drill holes or attempted drill holes above the dial area. The customer had drilled several holes in various locations in the safe body. He was attempting to see if anything was within the safe. After all, why pay good money to have an empty safe opened?

I angle drilled a hole through the dial ring at about number twelve. The outer door skin drilled very quickly. The insulation material was brown in color and almost like powder. It kept falling and filling up the hole. I used a can of compressed air to finally clear the hole. The entry into the lock case was a perfect location to view the wheel gates. It only took a couple of minutes to read the gates, transfer and open the safe.

When I saw the tall rectangular lock case (see photograph 3), I realized this was a Chicago brand safe. Photograph four is a close-up showing this unusual lock case and wheel pack. My drill hole can be seen just above and to the left of the drive cam. (Note the odd shape of the drive cam.) There isn't any hardplate in this safe, but the lock is deep into the door, about five inches from the door face.

Identifying a new safe of a limited production can be just as difficult as distinguishing some of the old safes. For example, the safe in photograph five.

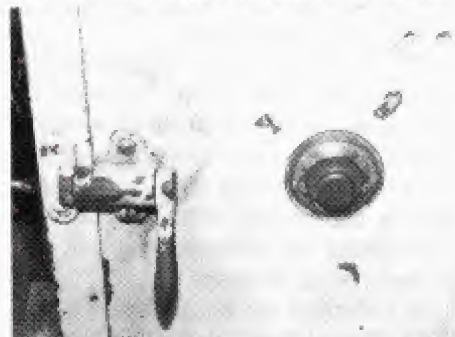
This safe shows no surface labeling or identification of the manufacturer. An outward observation provides some facts. The dial and ring are of the LaGard design, but the center of the dial knob reads "Precision Products Inc., Lexington Kentucky." An assumption would be that the combination lock is also by Precision Products, which is a clone of the S&G R6730. Regardless, if the combination lock was a LaGard, an S&G or the Precision model, the drill location for the fences is the same.

The distance from the center of the dial to the center of the handle is 5-1/8", which means the handing of the safe lock is probably either vertical down or right hand.

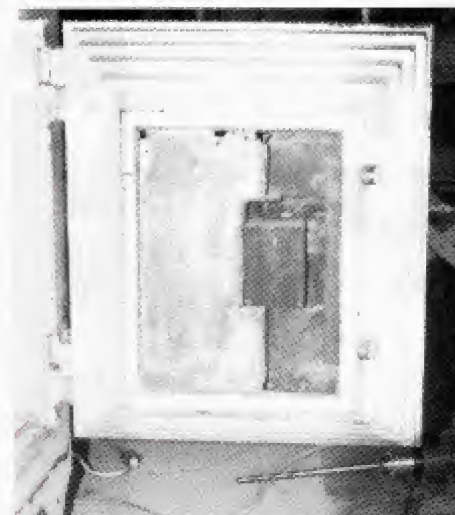
By slipping your business card into the crack between the door and door frame, you will find the door thickness to be one inch thick. The door is supported by and swings on two adjustable ball bearing type hinges. The handle appears to be one manufactured



1. Unknown brand of cast iron safe.



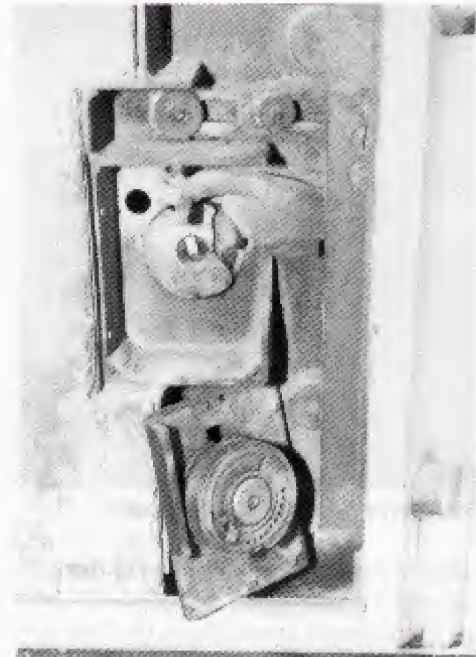
2. Seventy number brass dial and mini compression bar.



3. Thick "stepped" door. Note length of drill bit.

by LaGard. You will find the original paint to be either a tan or grey. Measurements of the outside dimensions are: 28"H x 19"W x 23-1/2"D. Although the safe weighs approximately 550 pounds, there are pre-drilled holes in its floor to accept mounting bolts.

The opening of this safe offers three alternatives. First would be manipulation. If this is not your expertise, then drilling is the next option. One choice is to drill through the



4. The unusual design of the Chicago combination lock.



5. A modern unidentified safe.

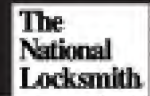
door. Take your best guess for the handing of the lock and drill for the fence of lock. If your hole doesn't show a fence, you guessed wrong and now it's the procedure of transferring to the correct handed drop of the lock.

The second choice for drilling would be through the side and/or top of the body. Using these drill locations will require a long viewing scope. The opening method will involve reading the wheel gates through the change key hole in the lock case. This takes a little practice, but saves repairing the door and the replacement of the safe lock.

Let's look inside and see what this safe has to offer. (See photograph 6.)

The safe is equipped with two adjustable shelves, a coin rack on the inside the door and a protecting plate covering the lock and bolt mechanism. It's 3-1/8" from the door face to this cover plate. The 1" thick door and 1/2"

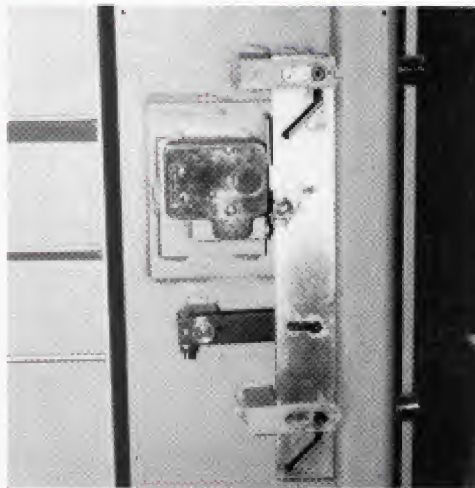




6. Interior view of modern safe.

body meets the requirements of the "C" burglary construction rating.

Photograph seven shows the heart of the safe, the lock and bolt works. This photo displays the door in a locked position while in photograph eight, the locking bolts have been retracted to the unlocked position. Note that the carriage bar, the flat bar with the two angle guide slots, has traversed upward to the unlocked position. Only when the correct combination has been run will the rotation of the handle move the carriage bar. The retractor pins of the



7. Bolt works in the locked position.

two locking bolts ride in the angle slots. As the carriage bar moves upward, the locking bolts are retracted.

The 1" diameter locking bolts in this safe are punch resistant. The view in photograph nine is looking downward from the top the door. Seen here is the steel square tubing supporting and guiding the locking bolts. The head of the retractor pin for the locking bolt can be seen resting in its slot.

At the end of the locking bolt is a 1" x 1" x 3/4" steel "stop" block. This block is attached to the carriage bar. When the



8. The carriage bar moves upward to retract the locking bolts.

carriage bar is in the locked position, the block fills the space between the end of the locking bolt and the adjacent mounting block. The locking bolt cannot retract until the carriage bar has moved the stop block upward and vacates the area behind the locking bolt. In other words, forget trying to punch the locking bolts back into the door.

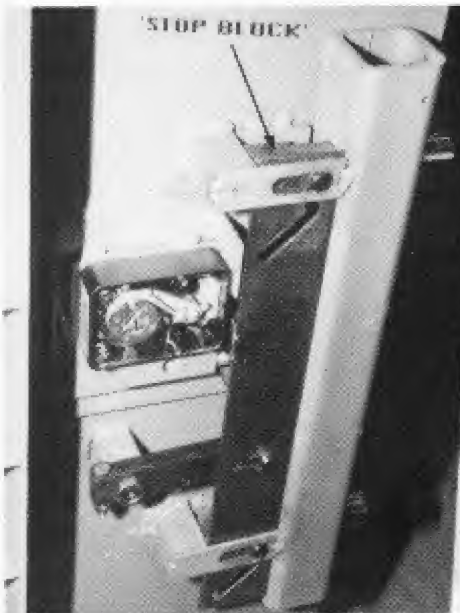
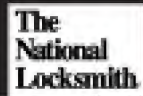
The bottom locking bolt is controlled

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9. "Stop block" prevents punching of the locking bolts.

by a sturdy detent device. (See photograph 10.) The detent prevents the locking bolts from being extended while the door is standing open. Without this device, the locking bolts and the face of the door frame could be damaged by



10. The locking bolt detent.

slamming the door shut with the bolts extended.

The early models of this safe were equipped with the LaGard lock model 3330-2. This is the model with the extending finger on the cover that secures an external relocker. The present version of this safe will operate with the Ilco Unican group 2 lock (a redesigned rendering of the old Precision Products lock). The external relocker is in the same location, one and three quarter inches down from the dial center.

*A note about the Ilco Unican combination lock.* The spindle is tapered and is installed by pressing it through

the face of the dial. If you attempt to pull the dial, the harder you pull, the tighter it becomes on the spindle.

The safe is a sturdy, efficient and a well built unit. The door boltwork is an excellent design and is serviceable by the safe technician. Bring along a handful of good carbide bits if the need should arise to drill the hardplate protecting the combination lock. You won't find a U.L. label on this safe, but it has many qualities meeting the label requirements.

So who is the manufacturer of this safe? Answer: a small company in southern California that specializes in

building custom and unique safes for special applications. The Safe Man Company is owned by Don Payne who designs and oversees the manufacture of their products. In only a few years of operation, The Safe Man has become the major provider of safes for national chain companies such as, Jenny Craig Weight Control Centers, Arby's Roast Beef Restaurants, Sizzler Restaurants and Nurseryland Garden Centers.

For product information or technical service, contact Don Payne, The Safe Man, 10651 Palm Row Dr., Lakeside, CA 92040, (619) 588-1845. §



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## Computer Corner...

by Regis McCafferty

# Masterkeying Program

*"As with the initial program I wrote ten years ago, I have kept this one very simple, written in Basic."*

To all my associates who have been brow beating me at trade shows, you win! Herein you'll find the IBM compatible version of my master keying pinning program. It has been about 10 years since I wrote that first version in TRS-80 format. I confess that I converted it some time ago to IBM compatible but never got around to cleaning it up so it could be published.

Although there are more advanced programs available, I've heard that they are a bit too sophisticated. It seems that the most frequent demand made of us is for a simple pinning chart type program.

As with the initial program, I've kept

it very simple. It's written in BASIC. The program is complete as is but in order to keep it short I have deleted all the traps that would catch input errors by the user. With only 67 lines, it shouldn't take more than about 10 minutes to type it into your computer.

Once loaded, all you have to do is type RUN. You'll be asked to input your choice of master key and how many keys you wish to produce. Be sure to follow the brief directions and insert a comma between master key choices. Unless you wish to modify the program, you *must* input master key bittings using even/odd numbers, (i.e.; 0, 3, 0, 3, 0, 3). If you do not, the

program will produce #1 master pins which in most cases don't exist.

Also removed from the program are the lines that limit maximum adjacent cut differential. The printout will include all mathematically possible selections. I would strongly urge you not to use any selection that exceeds a cut differential of more than seven. As an example, the program will eventually print a key with bittings 0-9-0-7-4-3. While there are a few manufacturers that do permit use of such a key, most would not. You can get thousands of selections from the programs without exceeding a cut differential of seven.

*Continued on page 118*



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Continued from page 116

There was a method to my madness though. By allowing the program to use every available bitting, it will produce page masters for you. When you do a print out you should easily be able to pick out the masters and submasters. A different level of master is available for every page as well as every four, sixteen and sixty-four pages. Take a look at the sample print out page. If you examine the change key bittings you should be able to pick out the master for this page. It is 0-3-4-1-2-5.

I've typed up a sample of what master keys exist and what pages they operate. You should be able to continue it without much effort.

This program will produce 4096 change keys, 5 levels of master keys and another four submasters on each page. I can't imagine many of us needing a system larger than that. We do a considerable amount of master keying at my shop and have never exceeded the limitations of the program.

I've tried to write the program so that it is very easy to modify bitting selections. Lines 130 through 180 contain the depth selections. Look at line 180. It reads [180 DATA 6,8,0,2,4]. The five numbers following the word DATA are the bitting depths available for the FIRST space on the key. The program will only produce keys with those depths in that space. Only four of the numbers can actually be used though since the program will not permit use of whatever number you've selected as a master depth in that space.

You could, if needed, change those numbers to all odd numbers, (i.e.; 3,5,7,9,1). In doing so, all change keys produced would have odd numbers in that space. One *very important* reminder though. If you do change the bitting selections available, you *must* also change your master key depth to match the rotation. Your master key bitting must be an odd number if you use odd numbers as bitting selections. If you don't you will produce #1 master pins.

The rotation of bitting selection depths on each line isn't really important. As an example line 180 could read, DATA 2,4,6,8,0 or DATA 0,2,4,6,8 or DATA 4,6,8,0,2 and so on. I like to mix the number rotation up so that the first key printed isn't always 0-1-0-1-0-1.

If you do modify the program, remember that the bitting selections for the first space on the key are in line 180. The second space selections are in line 170. The third in line 160. The fourth in line 150. The fifth in line 140 and the sixth in line 130.

One other item to be aware of is that the program can pause for several minutes occasionally. It happens when the computer is examining and then rejecting any change key bitting that might use a depth reversed for the master key. The time lag can be programmed out but that would require many needless additional lines for you to type in.

I've given you the six pin program here. It can also be used for five pin systems by just ignoring the sixth pin on the chart. I have other versions of the program available and if there is enough interest I'll give them to Marc to publish. The other versions include

one for Best type interchangeable core, Kwikset six depth system, Corbin/Russwin system 70 and American and Master padlock. Write in to *The National Locksmith* if you want them.

One note please. I've contributed my efforts in this program to my fellow retail locksmiths. I do not want it used by schools, hospitals, manufacturers or hardware stores. I freely give permission to all *exclusively retail* locksmith shops to make use of the program in their businesses. I *do not* give permission for its use in part or whole to any other individual, business or corporation, including but not limited to any local, city, state or federal government institution, educational or institutional organization or any retail, wholesale or manufacturing business not directly and exclusively involved in locksmithing. §

Level 1 MK		Level 2 MK	With a top master key bitting of 0-3-0-3-0-3 available MKs are:	
Page				
Page 1	0-3-4-1-2-5	◀ 0-3--0-1-2-5 Pages 1-4	Level 3 MK  ◀ 0-3--0-3-2-5 Pages 1-16	
Page 2	0-3-6-1-2-5			
Page 3	0-3-8-1-2-5			
Page 4	0-3-2-1-2-5			
Page 5	0-3-4-5-2-5	◀ 0-3-0-5-2-5 Pages 5-8		Level 4 MK  ◀ 0-3--0-3-0-5 Pages 1-64
Page 6	0-3-6-5-2-5			
Page 7	0-3-8-5-2-5			
Page 8	0-3-2-5-2-5			
Page 9	0-3-4-7-2-5	◀ 0-3-0-9-2-5 Pages 9-12		
Page 10	0-3-6-7-2-5			
Page 11	0-3-8-7-2-5			
Page 12	0-3-2-7-2-5			
Page 13	0-3-4-9-2-5	◀ 0-3-0-9-2-5 Pages 13-16		
Page 14	0-3-6-9-2-5			
Page 15	0-3-8-9-2-5			
Page 16	0-3-2-9-2-5			
Page 17	0-3-4-1-4-5	◀ 0-3-0-1-4-5 Pages 17-20		
Page 18	0-3-6-1-4-5			
Page 19	0-3-8-1-4-5			
Page 20	0-3-2-1-4-5			
Page 21	0-3-4-5-4-5	◀ 0-3-0-5-4-5 Pages 21-24		
Page 22	0-3-6-5-4-5			
Page 23	0-3-8-5-4-5			
Page 24	0-3-2-5-4-5			
Page 25	0-3-4-7-4-5	◀ 0-3-0-7-4-5 Pages 25-28		
Page 26	0-3-6-7-4-5			
Page 27	0-3-8-7-4-5			
Page 28	0-3-2-7-4-5			
Page 29	0-3-4-9-4-5	◀ 0-3-0-9-4-5 Pages 29-32		
Page 30	0-3-6-9-4-5			
Page 31	0-3-8-9-4-5			
Page 32	0-3-2-9-4-5			



Continued from page 118

```

10 CLS
20 PRINT"SIX PIN MASTER KEY PINNING CHART V2.192"
30 PRINT"COPYRIGHT 1982 REGIS MCCAFFERTY - ALL RIGHTS
RESERVED"
40 FOR X=0 TO 9500:NEXT X
50 CLS
60 DIM A(40)
70 L$(1)="      #          CHANGE          BOTTOM          MASTER
NOTES"
80 L$(2)="-----"
-----"
90 INPUT"INPUT MASTER KEY DEPTHS USING EVEN/ODD, USE COMMA
BETWEEN ENTRIES";D(0),D(1),D(2),D(3),D(4),D(5)
100 INPUT"INPUT NUMBER OF CHANGE KEY NEEDED =";T
110 FOR D=6 TO 35
120 READ A(D)
130 DATA 5,7,9,1,3
140 DATA 2,4,6,8,0
150 DATA 1,3,5,7,9
160 DATA 4,6,8,0,2
170 DATA 3,5,7,9,1
180 DATA 6,8,0,2,4
190 NEXT D
200 FOR Y=0 TO 6:LPRINT:NEXT Y
220 LPRINT L$(1)
230 LPRINT L$(2)
240 FOR H=6 TO 10
250 FOR G=11 TO 15
260 FOR F=16 TO 20
270 FOR E=21 TO 25
280 FOR D=26 TO 30
290 FOR C=31 TO 35
300 IF A(C)=D(0) OR A(D)=D(1) OR A(E)=D(2) OR A(F)=D(3) OR
A(G)=D(4) OR A(H)=D(5) THEN GOTO 370
310 GOSUB 480
320 N=N+1
330 LPRINT USING"#### = #-#-#-#-#-#          #-#-#-#-#-#          #-
#-#-#-#-#-#
#";N;A(C);A(D);A(E);A(F);A(G);A(H);B(O);B(1);B(2);B(3);B(4);
B(5);M(O);M(1);M(2);M(3);M(4);M(5)
340 LPRINT L$(2)
350 IF N=T THEN GOTO 670 ELSE 360
360 IF N/16=INT(N/16) THEN GOSUB 440
370 NEXT C
380 NEXT D
390 NEXT E
400 NEXT F
410 NEXT G
420 NEXT H
430 END
440 FOR X=0 TO 31:LPRINT:NEXT X
460 LPRINT L$(1)
470 LPRINT L$(2)
480 IF A(C)< D(0) THEN B(O)=A(C) ELSE B(O)=D(O)

```

Continued on page 122



Continued from page 120

```
490 IF A(D) < D(1) THEN B(1)=A(D) ELSE B(1)=D(1)
500 IF A(E) < D(2) THEN B(2)=A(E) ELSE B(2)=D(2)
510 IF A(F) < D(3) THEN B(3)=A(F) ELSE B(3)=D(3)
520 IF A(G) < D(4) THEN B(4)=A(G) ELSE B(4)=D(4)
530 IF A(H) < D(5) THEN B(5)=A(H) ELSE B(5)=D(5)
540 IF A(C)=B(0) THEN L(0)=D(0) ELSE L(0)=A(C)
550 IF A(D)=B(1) THEN L(1)=D(1) ELSE L(1)=A(D)
560 IF A(E)=B(2) THEN L(2)=D(2) ELSE L(2)=A(E)
570 IF A(F)=B(3) THEN L(3)=D(3) ELSE L(3)=A(F)
580 IF A(G)=B(4) THEN L(4)=D(4) ELSE L(4)=A(G)
590 IF A(H)=B(5) THEN L(5)=D(5) ELSE L(5)=A(H)
600 M(0)=L(0)-B(0)
610 M(1)=L(1)-B(1)
620 M(2)=L(2)-B(2)
630 M(3)=L(3)-B(3)
640 M(4)=L(4)-B(4)
650 M(5)=L(5)-B(5)
660 RETURN
670 END
```

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## Hardware Review...

# Kwikset's Brass Handlesets

*"Consumers can get a hands-on demonstration of the new handlesets from a free display mount."*

**T**o reinforce its commitment to style and quality, Kwikset introduces five new forged brass handleset designs.

The latest entry door handlesets, introduced at the National Hardware Show in August, 1991, will replace Kwikset's 700 Series entrance door hardware, according to Steve Price, vice president of marketing for the Anaheim, California-based company.

The new Sheridan and Monarch models, of contemporary design, and the Arlington series, with a colonial traditional motif, are available in polished brass, antique brass, antique nickel and polished chrome. The Chelsea colonial-style handlesets are finished in polished brass, antique brass and antique nickel. The Mediterranean-design Athens model is available in either antique brass or antique nickel.

"This is a product series that meets the market's demand for sophisticated styling, versatility, easy installation, reliability and security," said Price, noting that Kwikset has placed special emphasis on the quality components and upgrades designed into the new products.

The innovative Kwikset handlesets, which can be matched with interior knobs or levers, are manufactured of solid forged-brass. These products contain an all steel rack and pinion mechanism, plus a separate matching rose design, with a one-inch steel deadbolt to resist forcible entry.

Two interior lever styles, as well as six knob styles, are available in combinations with single-cylinder deadbolts and dummy functions in Kwikset's new clear package design.

"New transparent, wrap-around packaging clearly shows the consumer the handleset style, finish, and interior hardware at a glance," Price said. The back of the package provides complete step-by-step instructions for both replacement and new installations, as well as simple illustrations of the basic tools required. For easy assembly, he

pointed out, all component parts are clearly identified.

For interested dealers, Kwikset also has available a 10-minute video cassette that was designed to educate Kwikset dealers' employees about the ease of installing Kwikset products, and to encourage consumers to upgrade their door hardware to decorative handlesets.

*"A full lifetime warranty guarantees the product."*

Consumers can instantly get a hands-on demonstration of the new handlesets by means of a working display mount, available free to dealers who order the hardware.

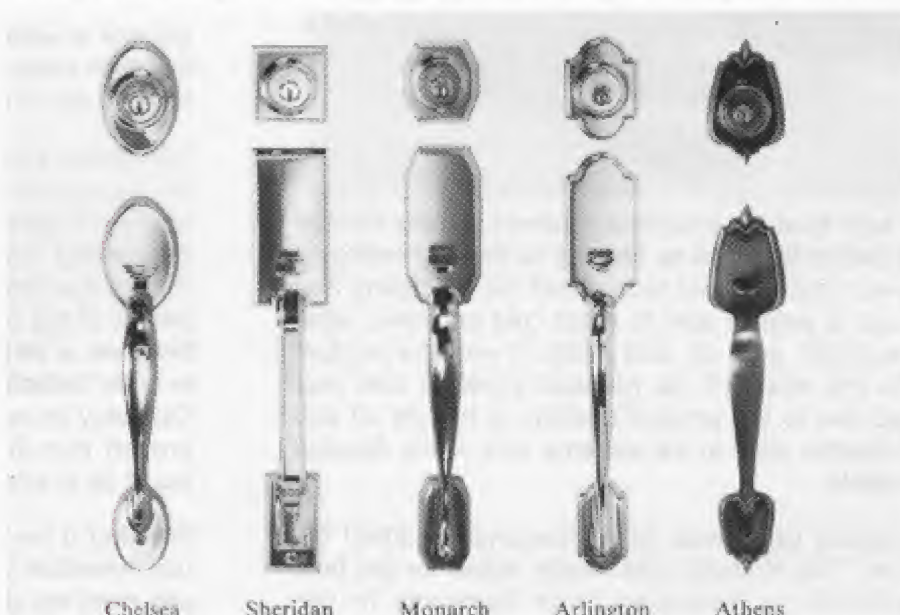
"We've found this 'try-it-before-you-buy-it' approach to consumers to be a highly effective sales motivator," observed Price, who said that the new Kwikset handlesets, designed for smooth thumbpiece pressure and comfortable thumbpiece-to-handle distances are user-friendly to men and women. "Our research showed that women enjoy using our new handlesets

as much as men, who we've found prefer heavier, more solid hardware." Designed to convert easily during installation for either left-handed or right-handed operation, the recently introduced Kwikset handlesets can be keyed alike with any other Kwikset locksets for side or back doors.

The finish on all five new Kwikset handlesets has been double-coated for extra protection. In addition, a supply of premium polish is included in each new product package. Used at the time of installation, the protective compound helps ensure a long lasting, elegant brass appearance.

Kwikset also offers purchasers of the solid brass handlesets a full lifetime warranty, which guarantees that the product (other than its finish) will be free from defects and workmanship for the duration of the time that the purchaser owns the home in which the Kwikset handleset was installed. The warranty assures replacement, repair or refund of the purchase price.

For additional information contact: Kwikset, 516 E. Santa Ana St., Anaheim, CA 92803-4250 (714) 535-8111. §



Kwikset's five new forged brass handleset designs.



## Trade Talk...

by David Hall

# Electronic Security

*"Once you know if you need fail-safe or fail-secure, then you can choose from among four types."*

**E**lectronic locking and unlocking of doors is a product segment of the security market which is sometimes misunderstood. Locksmiths who may be uncomfortable working with electricity may steer clear of this vast market. For the moment, let's ignore the electrical controls, and instead concentrate on the various types of electronic locking products which are available to the locksmith.

There are two questions you must answer before choosing the type of lock you will use. First, do you want to lock people out or do you want to lock people both in and out? Second, in the event of a power failure, should the door be locked or unlocked? When power fails and the door remains locked, that is called Fail Secure. When power fails and the door unlocks, that is called Fail Safe.

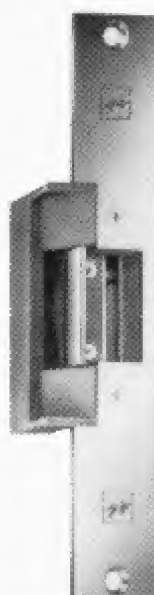
Once you determine which of these conditions you require, you can choose from among four basic locking groups. Although there may be other groups, these do cover the majority. All of these products have certain advantages and disadvantages depending on the situation. The four groups are Electric Strikes, Magnetic Locks, Electric Deadbolts, and Electrified Hardware. Let's look at each group individually.

**Electric Strikes.** Advantages are that you can use standard frame preps, with slight modification. They are available both Fail Safe and Fail Secure, generally use a low power requirement, and are usually cost effective. Disadvantages may include requiring interaction with other lock products such as a lockset or panic bar; this can make it difficult to choose the correct product. There are limited monitoring options, and they do not necessarily fit all frames.

**Electromagnetic Locks.** Advantages are that they normally surface mount no special preps are



The Conford® 8320 double electro-magnetic lock from Rutherford.



The 7119-Fail Locked electric strike

required. They fit most frames and feature low power requirements. They are easy to install, and are not usually influenced directly by other locking products. Plus there are many monitoring options to choose from.

Disadvantages may include cost since the locks are priced higher than strikes, they may have to interconnect to other security systems, and are available only in Fail Safe.

**Electric Deadbolts.** Advantages are that some are economical, are usually quite strong, and they are available both in Fail Safe and Fail Secure. Normally they draw low power, and do not have to interface with other locking products. Disadvantages may include the fact that some are expensive, non-standard preps are



Rutherford's "effeff" 0161 series strikes.

usually required for mortise units. Further they are against building codes in some states for some applications, and possibility of jamming exists.

**Electrified Hardware.** Advantages include excellent appearance, and availability in both Fail Safe and Fail Secure. Disadvantages may include cost, some have higher power requirements, and the electrical portion goes on the door instead of the frame.

This is a very brief overview of the most common electronic locking products. Of course, features vary from manufacturer to manufacturer. These points are simply the most common. If you are interested in tapping into this large market take time to research the various manufacturers and their products. §



## Electronic Locking...

## A New Rofu Lock

*"The 8011-003 can be used as a stand-alone unit for single door applications or for multi-door systems."*

**R**OFU International, Corp. introduces a new generation of electro-magnetic locks for time delayed egress applications that complies with the NFPA 101 Life Safety Code. The model 8011-003 is a state-of-the-art lock that contains a highly sophisticated microprocessor unit and an extensive array of operating and interfacing features. All electronics, control components, alarm sounder, and wiring terminals are contained within the wiring compartment of the lock.

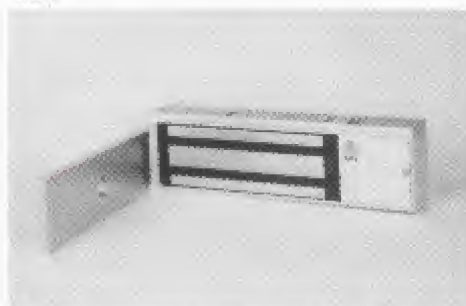
Primarily designed for securing and releasing emergency exit and perimeter doors, the ROFU lock can be installed on any door requiring alarm notification and controlled egress. This system allows the exit door to remain legally locked for normal operation thereby providing security from the building's exterior and preventing unauthorized egress from within. When an attempt to exit is initiated, an alarm will sound and the door's opening will be delayed for 15 seconds.

To satisfy both security and life safety requirements, the system is engineered to be completely "fail safe". It provides immediate release of the locked door in the event of a fire emergency or power outage.

Installation is similar to that of standard magnetic locks and requires no modification to existing door hardware. The magnet is fitted to the door frame and the armature to the top of the door by use of the installation template. A complete line of filler plates and mounting brackets for ease of installation on wood, metal or glass doors is offered by ROFU. No adjustment or maintenance is required after initial installation. Operation is straight forward and no special knowledge is required by the installer or user.

The 8011-003 can be used as a stand-alone unit for single door applications or configured into a multi-door system for

larger installations. Wiring of a single door unit simply consists of a 2 wire connection to a local D.C. power source and a 2 wire connection to normally closed relay contacts in a fire alarm control panel. Each single door lock can be powered by a small plug-in type power supply of 0.5 amps or greater. A D.C. power unit or A.C. transformer with bridge rectifier will work equally well.



An important feature of this unit is an internal hall effect bond sensing circuit which greatly enhances the integrity and security of the system. If magnetic bonding between the surface of the lock and the armature plate is interrupted by a foreign object or mechanical misalignment, the full holding force of the magnet will be markedly reduced. The bond sensing circuit will detect this condition and sound a distinctive alarm pattern by repeating 4 quick beeps. This signal will continue until the bond violation is corrected.

For traffic control or free egress operation, provisions are contained in the 8011-003 lock for interfacing with any bypass device, for example, a push button, key switch, key pad, or access control system. Whenever a contact closure is received, the lock will de-energize for the duration of the closure and the alarm cycle will be inhibited. When the closure is removed, the lock will return to its normal operating state. These same bypass devices can similarly be used to reset the lock after an alarm egress cycle.

In addition to the lock's internal

alarm sounder, a 12 volt D.C. output signal is provided for remote alarming. A piezo type alarm unit is recommended and the current draw of that alarm unit should not exceed 50 milliamps. Alternatively, a small relay can be driven by this signal for connection to a monitoring station or alarm panel.

Also, a set of internal relay contacts that follow the on-off state of the magnet is available for interfacing to other devices. This form "A" single pole contact arrangement is rated at 1 amp and is closed when the lock is energized and open when de-energized.

For multi-door installations, ROFU offers both a 5 zone and 10 zone central control and monitoring panel. The panels function as a universal magnetic lock control station and can accommodate time delay egress locks, standard magnetic locks, or a mixture of both. Requiring a different wiring configuration than the stand-alone lock, the panel utilizes a single source power supply and supplies power to all locks. An alarm sounder, a full complement of status lights and control switches, and a provision for instant release of all magnetic locks during a fire emergency are features of the panels.

This easy to install self-contained magnetic locking system provides a cost effective solution for combining security and life safety into a complete door management package. Designed to fully comply with the NFPA 101 Life Safety Code, the unit is ideally suited for installation on perimeter and emergency exit doors in retail shops, department stores, supermarkets, warehouses, hospitals, nursing homes, schools, airports, office buildings, or any facility where both security and life safety must be maintained.

Utilizing the same compact housing and reliable electromagnet as ROFU's standard series 8011-002 magnetic locks, the microprocessor-based

*Continued on page 133*



Continued from page 130

delayed egress model includes such features as 12 or 24 volt D.C. operation, low power consumption of .025 amps, and a convenient internal wiring compartment with terminal block.

An 85 dB alarm sounder contained within the lock assembly provides 3 distinctive signaling patterns. Exit attempts are reported as a continuous tone, a bond violation is represented by repeating 4 quick beeps, and a fire emergency produces a continuous on-off beeping pattern.

Another distinctive feature of the 8011-003 lock is a red LED which flashes once per second to verify that the system is active and working properly. The LED additionally provides an accurate means of visually checking the delay cycle timing sequence during alarm and reports the status of the magnet by flashing when the lock is energized and off when de-energized.

A special "watchdog" safety feature has been incorporated into the design. The microprocessor continually monitors its own operation. If the unit malfunctions or fails to run as programmed, the system will automatically force the magnetic lock to release and sound the alarm thereby ensuring fail-safe operation.

When the attempt to exit is initiated by pushing against the panic bar, the slight outward movement of the door activates the irreversible time delay cycle. The alarm will sound and the magnet will release for free egress after a 15 second delay (30 seconds optional.) This programmed delay will allow building personnel time to respond and investigate the exit attempt. The alarming lock can be reset by either of two methods. After egress, building personnel can physically reopen and close the door from the inside for reset, or reset can be accomplished with a key switch or other external device issuing a momentary contact closure to the reset terminals of the lock.

In some installations, a front-end nuisance delay may be required to prevent false alarms by inadvertent contact with the panic bar. In compliance with NFPA 101, the 8011-003 system can be set to alarm immediately or factory adjusted for a nuisance delay of 1, 2, or 3 seconds. When a nuisance delay is installed, the panic bar must be pushed continuously for the full 1, 2, or 3 seconds to activate the alarm and maintain the egress cycle.

Detection of door movement is the technique used to activate the egress cycle. A floating armature plate allows

the door to move outward approximately 3/16". Activation is accomplished through the use of an inductive proximity sensor built into the cover plate of the lock and an adjustable metal target knob attached to the door. This activation method involving the use of an inductive sensor is a proprietary method developed by ROFU and is currently under patent pending status.

When the door is closed and the target knob is in close proximity to the inductive sensor (about 1/16"), the magnet is energized and the alarm is silent. When pressure is applied to the door's release mechanism, a slight outward movement of the door will cause the target knob to move away from the sensor thereby activating the system and sounding the alarm. For ease of installation, the target knob is a

fully adjustable thumb screw device that is simply adjusted in or out until proper operation of the activating sensor is achieved.

The model 8011-003 delayed egress magnetic lock comes with a one-year limited warranty against defects in materials and workmanship. It is available as a magnetic lock only or as a complete package including lock, power supply, and door sign. Factory programming is also available for custom requirements or special building codes. Rofu manufactures a full line of security related products and controls to support complete installations of single door and multi-door locking systems.

For more information contact: Rofu International, 3725 Old Conejo Rd., Newbury Park, CA 91320, (805) 499-0316. §



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by Jake Jakubowski

## There's No Free Lunch!

*"In my opinion, one of the gravest errors a locksmith can make is not charging a service call. You have expenses!"*

As incomprehensible as it might seem to many who will read this, there was a time (before mine) when an individual could go down to the local watering hole, and not only buy a beer for a nickel, but get their choice of an array of sandwich and snack goodies...the "free" lunch.

By the time I was old enough to patronize those establishments, the best you could hope for was some peanuts and pretzels or, in the less up-scale places,....some popcorn. Beer had gone to a quarter a glass. Even that might seem unbelievable to some readers younger than I.

The thinking behind this seemingly fiscal madness was that if you gave the customer "something-for-nothing," the customer would spend more money in your establishment. It worked too. Of course, it benefited the establishment that the free lunches of yesteryear, and the pretzels and popcorn of my generation, contained enough salt to make a person drink like a camel after two weeks in the Sahara!

Now, sandwiches are probably three bucks, and I haven't bought a beer in so long, I don't know what they cost. I do know....a nickel they ain't.

The point is that there are no longer any free lunches, or nickel beers. Sad, but true. Today you have to pay for everything, period!

I know that you know this. I know that my repeating it is a redundancy. I also know that there are a fair number of new (and established) locksmiths out there who, in spite of their knowing that there are no "free" lunches, will still follow the "free lunch" philosophy by giving free lunches without "salting" the food!

In this case, the free lunch being a free service call: "The next time you come by, stop in and make me a key. But, don't make a special trip."

(translation: "I ain't payin' for no service call!"). So, you "stop by" when you're finished with a paying customer that is two blocks, or two miles away, and you make a key for a buck-fifty! Your customer had the benefit of a "free lunch" at your expense without having to "drink at your trough"....not even a nickel's worth.

Now, if that hypothetical customer, is a "good" customer, one who spends serious money with you...on a regular basis, then you came out on the plus side of the free lunch. However, if that customer is an individual that chronically calls you with the "when you're over this way" approach, and is never willing to pay a service call, he, or she, is "eating" at your expense. If the latter is the case, you need to find a different customer.

The amount of money that is "serious" and the call frequency of a "regular" basis is something that you have to determine to fit the needs of your own business. One thing that I can tell you is that one or two openings, or one or two cylinder changes, per year should not entitle that customer to a free anything...except a smile and a sincere "thank you for your business."

Case in point (fictitious):

"Honest Abe" Johnson, "The Kredit Kar King," calls you up and tells you he needs a locksmith, and "to jes' stop on by when ya'll are ovah heah, and we'll do some bidness, boy!" You have seen Abe's lot. He's got more cars on it then they can park at the Astrodome! He's also got one, or two, full-time "mechanics/lot boys," that do ninety-eight, and seven-tenths percent of his lock work, and moonlight repo-ing the "Kredit Kars"!

At any rate, you go "ovah" and the man, himself greets you. "Hey, boy, it's good to meetcha! Let's go inta mah office and talk some bidness,

boy!". The first "bidness" he wants to talk to you about is "givin' ya' all mah lock bidness", and "wat kin' a deal you gonna give ol' Abe, boy?" You think about a "deal" for ol' Abe (while looking out the office window at all those cars!) and quote him a "flat" rate per car including the service call.

The first "bidness" you get from ol' Abe is a twenty-year-old Mercedes ("I got me this heah Mar-Say-Dees, boy") with a broken ignition switch. You grit your teeth and think about "all those cars on the lot. The next "bidness" you get from ol' Abe is, "The dad-gum bookkeeper went to lunch, boy. Give y'all's bill to the sec'tary, and I'll sen' y'all a check!" Then comes the "Hey, boy, how 'bout stoppin' when y'all are ovah this way" routine. Then, after you have cut the key, "Jest add it to your next bill, boy, y'all heah!"

Now, ol' Honest Abe, "The Kredit Kar King" is into you for a "Mar-Say-Dees", a car opening (his "mechanics" could not get it open, and you had to repair the linkage!), a trunk key for a customer that Abe sent to you ("Y'all ain't goin' to charge ol' Abe for a service call, are ya, boy?"), and the key you "jest stopped by" to make. He got the "free lunch" and you (since ol' Abe has not sent the check) couldn't buy a beer if they were still only a nickel!

The next (and final, if you're reasonably competent) "bidness" that ol' Abe "gives" you, is when you try to collect the money he owes you. "Gawd, A'mighty, boy! I thought you and me could work t'getha, son. But y'all is jes' bad as the rest o' them there locksmiths out there! Y'all ain't the only locksmiths ya know. Now, y'all git off mah prop'ty raht now, ya heah!". If you're very, very, lucky ... you might leave with a check.

On the other hand, there are some

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very fine, and lucrative accounts out there. They provide you with good, solid, repeat business. They pay their bills within a reasonable time frame; and....they are not looking for "something-for-nothing."

**It is these accounts** that you want to "treat" to a free lunch occasionally. Either by not charging for some small, and simple job, or by not charging for a "repeat" call when you have had to make a second trip to complete a job. And when you "give" that "free" lunch, don't be shy about letting your customer know that it is

your way of saying you appreciate their business.

**As I said earlier**, you have to pay for everything. For gasoline and oil to run your service vehicle. For insurance, depreciation, tires and repairs. These are all direct costs to you. These are costs that you cannot cover completely with your profit from the sale of merchandise (otherwise, where does your profit come from?). You cannot cover those costs with your installation charges. The only way to cover those cost is by charging a reasonable service call.

In my opinion, one of the gravest

errors a beginning locksmith can commit is to fail to charge a service call to all of the people or businesses that locksmith does work for. It is easy when you are just starting (I did), to fall prey to the "jes' stop by" routine. The real problem surfaces when you find that you can no longer afford to "jes' stop by". Because at that point you have come to the realization that time is money. The reason, that realization becomes a problem is, the "customer" does not want to pay you for "jes' stoppin' by" since "y'all are ovah heah anyways" and ... you wind up losing that customer!

**I can relate to the fact** that many of you probably felt that you could really "win" a particular customer over by showing them that you were willing to meet them halfway. In reality, you have let them know that the lunch counter was open, and you were buying.

So, how do you deal with the "Honest Abe's" that you encounter? By letting them know that you will be glad to do "bidness" with them...on your terms! Give the "Kredit Kar King" a flat rate per car if you're inclined to do so...but let him know that "Mar-Say-Dees," "VATS," and other "specialties" are not included in the flat rate. Also, let them know that you expect a certain amount of "bidness" from them every month... or no flat rate. Above all, tell them up front that you get paid when you do the job.

**Fortunately**, the majority of the work you do will be for the good, solid accounts I mentioned earlier. You know, the ones you don't really mind giving a free lunch to occasionally. Anyway how do you "salt" the food to keep them "drinking at your trough?" By learning everything you can about what you are doing. Every bit of knowledge that you can garner about your trade, from whatever source, will make you a more competent locksmith. The more competence you can exhibit to your customers, the more confidence they will have in your abilities.

As a novice business person just starting your own shop, or as an established lockshop, increasing you knowledge (and thereby your competency), will lead to increased sales and profits ... even though there are no longer free lunches and nickel beers! §



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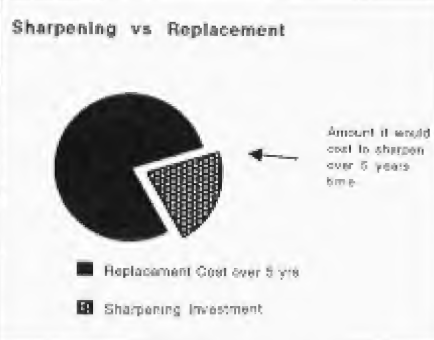
## Trade Talk...

by David J. Deuel

**W**ould you like to make more money in your key cutting operation? If you would like to earn higher profits for your company you can easily do this by recycling something that you have an ever increasing supply of: dull key cutting wheels.

If your business is like the majority of our sharpening customers, you have gathered quite a few dull key machine cutters over the years. At today's prices for replacement cutters, you have a substantial investment in dull wheels. There is no better time than the present to seriously consider the benefits of using sharpened cutters on your key machines.

Gil-Ray Tools Inc. has been actively



involved in manufacturing key machine cutter wheels since 1945. Our mail-in cutter sharpening service can keep you supplied with all the sharp cutters you'll need at very economical rates.

*The amount that you can save by*

*using sharpened cutters instead of buying new wheels will quickly add up to greater profits for your key cutting business.*

Most cutters can be sharpened 5 or 6 times, some can be sharpened more. Because we sharpen dull cutters to factory blueprint specifications, the sharpened cutters will work just as good as new. In fact, some of our customers claim that they work so much better than new wheels that they send new cutters in for sharpening before they use them.

All types and styles of dull key machine cutters can be sharpened including: duplicating cutters, rotary files, flat slotters, side milling slotters,

*Continued on page 156*



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Continued from page 154

milling cutters, code machine cutters, end mills for tubular keys, drill bits, dimple mills, and hole saws.

*"How much can I save by using sharpened key machine cutters?"*

We are often asked this question. The following examples might help you to see how valuable sharpening can be to your business.

**Joe's Lock Shop** has the following key machines in his shop and van: 1- HPC 1200 Code machine with CW14MC, CW1011, CW1012 cutters; 1- Rytan RY100 precision key duplicating machine with a RY100-030 cutter; 1- Framon TKM100 tubular key machine with a carbide 3/16" end mill; 1- HPC 9100 duplicating machine with a SMS-45 cutter for safe deposit keys; and 1- ESP Manual key duplicator in the van with a 34MC cutter.

Let's assume that all these cutters become dull within one year and are replaced with new cutters. The replacement cost for buying new cutters is as follows: CW14MC, 1011, & 1012 are approximately \$99.00 each for a total of \$297.00.

A new Rytan RY100-030 cutter costs \$135 to replace with a new wheel. A Framon EM316CA costs \$32.00 new. A new HPC SMS-45 costs \$45.00. And the ESP 34MC costs \$55.00 to replace with a new cutter.

The total amount that Joe will spend to buy new cutter wheels for all his machines is \$564.00, plus shipping and handling.

**Ben's Locksmith Service**, has the same type of operation as Joe's, but unlike Joe, Ben has implemented a cutter resharpener program with Gil-Ray Tools.

Ben's cost to have the same cutter wheels sharpened when they became dull is as follows: His code cutters: CW14MC, 1011, and 1012 were sharpened together as a matched set, so that the diameters remained the same size for machine set up convenience. The sharpening charge for each cutter was \$27.75, for a total of \$83.25 for all three. Ben's Rytan cutter cost \$27.60 to sharpen. His Framon Carbide end mill cost \$14.70. The SMS-45 cost \$13.75 to sharpen; and his 34MC cost \$14.75.

Ben's total investment to keep his shop in sharp cutters over the same period of time was only \$154.05.

With this in mind, imagine how much more profits that your key cutting operation can earn for you over the years.

By investing in cutter sharpening instead of replacing dull cutters with new wheels, Ben saved over \$407.00. (The difference between sharpening and the cost of new wheels.)

*"You can keep your shop supplied with sharp cutters at all times."* Cutter sharpening is such an economical investment that you can keep your shop supplied with sharp cutters at all times, save enough to buy new cutters, and have money to spare by the difference between the cost. The savings that you will realize will quickly add up to extra profits for you.

At Gil-Ray Tools, cutters are precision ground to new cutter specifications. Because of this they work just as well as new cutters.

*Dull cutters can be sharpened over and over, as many times as your machine has adjustment for diameter wear.* (Most cutters can be sharpened 5 to 6 times.)

As you can see from these examples, your company can indeed earn higher profits by using sharpened key cutters. If you do not already use sharpened cutters think about sending in your dull wheels today.

*Hole Saws Can Also Be Sharpened*  
The Gil Ray tool makers have over 47 years experience in sharpening all types of tools. Sharpened hole saws work very well and most can be sharpened several times.

Some other items which can be sharpened for you include: drill bits, chisels, spur bits and auger bits.

Gil-Ray Tools has prepared a free brochure about cutter sharpening. For your copy or to have your questions answered, please phone (517) 892-6870, or write to Gil-Ray Tools, P.O. Box 801, Bay City, MI 48707. §

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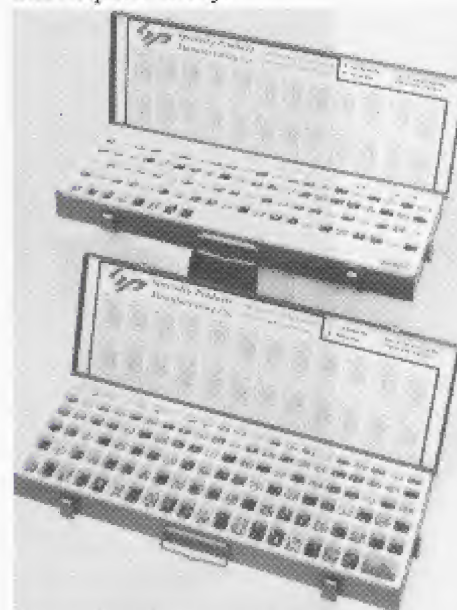


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### Specialty Products

Specialty Products Manufacturing Co. offers a full line of lock tumbler pins and pinning kits for professional locksmiths. The company, formed in 1980, produces a wide variety of original pins and related Swiss screw machine products for many manufacturers as well as its own line of replacement and original pins used for repinning. All pins are produced on Escomatic Swiss screw machines which insure the burr-free quality and dimensional accuracy needed to produce these important components. State-of-the-art inspection guarantees the tightest tolerances available in the marketplace today.



### Specialty Products pinning kits.

The .115" diameter universal color coded replacement pins are offered in both the five thousandth increment (.005" or 5/1000) and the three thousandth increment (.003" or 3/1000). Top/Master pins for both increments are produced with flat ends and properly chamfered corners, .010" x 45°. Five thousandth increment bottom pins have a standard nose and a .010" x 45° chamfer with a perfectly flat center on the back end of the pin. Three thousandths increment bottom pins also have a standard nose but the back end has a slight chamfer and partially radiused corner that blends into a flat center. The radius provides smoother operation as it matches the profile of the cylinder while the flat center insures that top/master pins will not tip or roll. All 3/1000 and 5/1000 increment pins are produced from full hard #360 alloy brass for

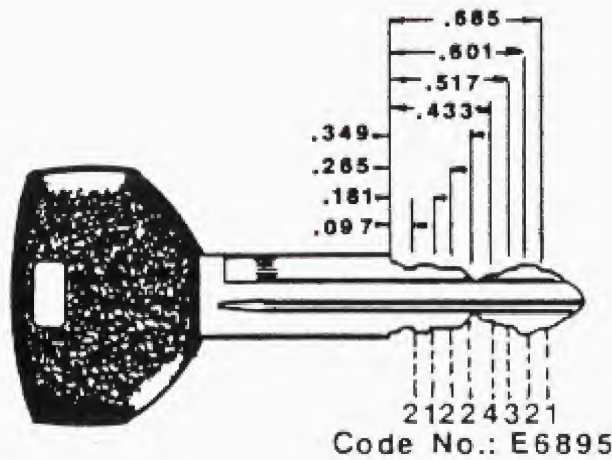
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# Hyundai Codes

T001-1000



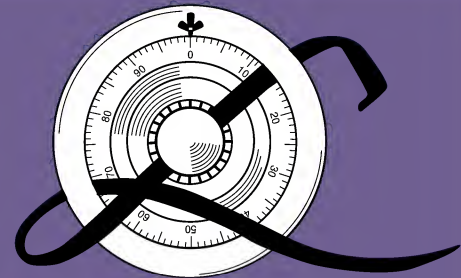
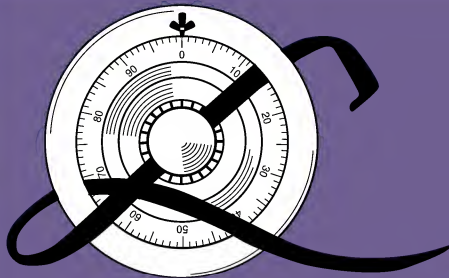
## DEPTHS

0 - 1	5-
1 - 0.327	6-
2 - 0.299	7-
3 - 0.271	8-
4 - 0.244	9-

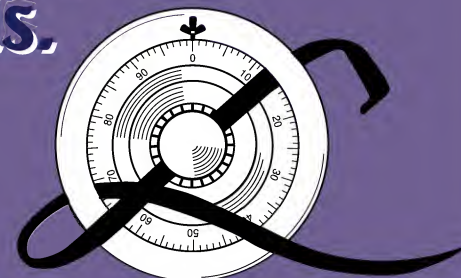
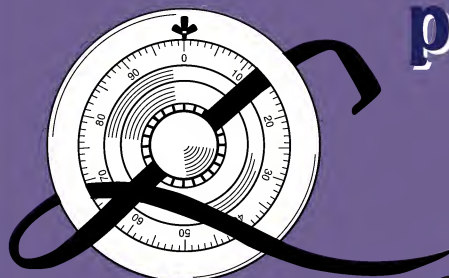
## KEYWAYS

Silca HYN6  
 Ilco X216  
 Curtis HY6

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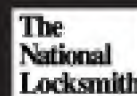


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## T001-1000 HYUNDAI

### Keyblanks:

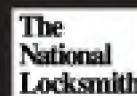
Silca HYN6  
Ilco X216  
Curtis HY6

### Code Machines:

1200 CM No. XF88

0001	0051	0101	0151	0201
01 22313311	51 42332434	01 13224342	51 42324431	01 43123132
02 43313442	52 23443122	02 23442213	52 44331123	02 43443123
03 44332432	53 34244323	03 23134234	53 43244332	03 23432121
04 31224323	54 13232123	04 21234423	54 11344334	04 23132231
05 33221131	55 21243134	05 12343434	55 13422112	05 24331212
06 32112344	56 32331122	06 42112213	56 31343124	06 43243324
07 12123313	57 43131322	07 22134211	57 31221233	07 31213232
08 13423442	58 23212133	08 44212343	58 33131212	08 21213124
09 12422131	59 44213134	09 43124331	59 34242243	09 13344311
10 42121233	60 24342132	10 24334234	60 32321342	10 34433242
11 42334324	61 22312334	11 42331242	61 13223311	11 12332324
12 23443242	62 43312434	12 44332131	62 23434221	12 32321213
13 34311223	63 44332212	13 43311322	63 23133122	13 13223132
14 13232434	64 31223243	14 12112443	64 21224311	14 22131313
15 21243342	65 33212443	15 13422421	65 12342213	15 33124232
16 32334221	66 31344243	16 31343442	66 34434223	16 34234342
17 43132232	67 12121324	17 31221331	67 22133113	17 31342431
18 23213321	68 13423121	18 33211243	68 43443321	18 11343431
19 44213321	69 12344323	19 34243131	69 43123422	19 44323431
20 24343134	70 42112424	20 32323124	70 24332123	20 42323121
21 22313213	71 42332321	21 13224231	71 42323344	21 43122324
22 43313212	72 23442421	22 23434342	72 44324323	22 43112323
23 44332324	73 34244212	23 23134213	73 43244221	23 23424243
24 31224231	74 13231312	24 21234343	74 11344221	24 23131342
25 33221123	75 21242334	25 12343232	75 13421213	25 24331121
26 32112124	76 32324424	26 42112133	76 31343121	26 43243242
27 12123123	77 43131243	27 22133134	77 31213424	27 31212433
28 13423344	78 23134422	28 44212211	78 33124423	28 21211344
29 12421234	79 44213112	29 43124313	79 34242124	29 13344224
30 42113232	80 24334423	30 24332434	80 32321321	30 34433221
31 42332442	81 22134324	31 42331223	81 13223212	31 12332311
32 23443234	82 43312311	32 44331322	82 23432244	32 32313242
33 34244331	83 44332134	33 43311231	83 23132312	33 13221342
34 13232421	84 31223123	34 12112244	84 21213313	34 22124433
35 21243213	85 33212324	35 13422332	85 12334242	35 33124224
36 23232211	86 31344231	36 31343212	86 34433422	36 34234221
37 43132213	87 12113322	37 31221313	87 22132443	37 31342242
38 23213234	88 13422434	38 33132422	88 43443232	38 11343322
39 44213313	89 12344212	39 34242334	89 43123342	39 44323342
40 24342431	90 42112421	40 32323112	90 24331242	40 42322134
41 22313121	91 42331344	41 13223424	91 42323312	41 43122311
42 43313124	92 23442231	42 23434324	92 44324212	42 43442212
43 44332242	93 34243432	43 23133424	93 43243431	43 23423424
44 31223432	94 13231132	44 21231134	94 11343443	44 23131324
45 33213422	95 21234431	45 12343124	95 13344342	45 24314432
46 31344324	96 32324244	46 34434312	96 31342434	46 43243113
47 12122431	97 43131123	47 22133131	97 31213344	47 31212342
48 13423223	98 23134342	48 44211323	98 33124344	48 21134332
49 12344331	99 44212431	49 43123434	99 34234422	49 13342443
50 42112442	00 24334242	50 24332231	00 32321234	50 34433124





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## T001-1000 HYUNDAI

### Keyblanks:

Silca HYN6  
Ilco X216  
Curtis HY6

### Code Machines:

1200 CM No. XF88

0751	0801	0851	0901	0951
51 44334232	01 43343121	51 32422331	01 21313322	51 24344313
52 34324421	02 21323231	52 31233112	02 44231311	52 13234243
53 44233423	03 43211212	53 32132132	03 22334421	53 31231322
54 42423421	04 42422433	54 24423234	04 32421131	54 13424433
55 24431124	05 13433212	55 22343131	05 42123323	55 11223323
56 43212132	06 24221343	56 13243242	06 42343432	56 23231213
57 33421224	07 11233422	57 12212434	07 32124342	57 24212334
58 12442334	08 34323121	58 33242231	08 33232112	58 43133124
59 24232134	09 12433424	59 42131134	09 34321134	59 12133432
60 32133442	10 23243244	60 44232113	10 12431344	60 43322443
61 23244231	11 32423434	61 43324422	11 24421132	61 21312343
62 11242313	12 31234234	62 21321332	12 13242324	62 44221233
63 31242233	13 32132321	63 43134311	13 31232213	63 22331231
64 12231321	14 24423342	64 42344331	14 13431231	64 32342312
65 21324233	15 22344234	65 13431322	15 11224433	65 42123113
66 42133421	16 13243431	66 24213423	16 23233124	66 42342324
67 32424231	17 12213324	67 11231342	17 24213121	67 32122313
68 43344312	18 33243122	68 34322313	18 43133244	68 33224431
69 13434322	19 42132334	69 12433122	19 12134321	69 34312321
70 22424334	20 44233122	70 23234344	20 43324221	70 12423312
71 13244334	21 43342422	71 32422133	21 21313244	71 24344221
72 34324243	22 21323134	72 31232442	22 44231231	72 13234211
73 44233243	23 43134432	73 32131344	23 22334312	73 31231244
74 42423324	24 42421343	74 24423113	24 32344322	74 13424313
75 24424323	25 13432423	75 22343113	25 42123243	75 11221234
76 43212113	26 24221311	76 13243134	26 42343234	76 23224313
77 33244243	27 11233234	77 12211243	27 32123311	77 24211213
78 12442112	28 34322442	78 33242213	28 33231242	78 43133112
79 24231332	29 12433421	79 42124334	29 34313211	79 12132234
80 32133224	30 23243211	80 44231342	30 12431212	80 43322421
81 23243434	31 32422344	81 43324224	31 24344332	81 21311234
82 11242243	32 31234211	82 21313431	32 13234432	82 44221121
83 31234242	33 32132243	83 43134242	33 31232124	83 22313443
84 12231124	34 24423312	84 42344211	34 13431224	84 32342244
85 21323423	35 22343321	85 13431243	35 11224331	85 42122433
86 42132342	36 13243322	86 24213312	36 23231244	86 42342213
87 32423442	37 12213233	87 11231323	37 24213113	87 32121332
88 43344223	38 33242442	88 34321232	38 43133221	88 33224211
89 13434234	39 42131221	89 12432442	39 12134223	89 34312234
90 22344343	40 44232421	90 23234321	40 433223424	90 12423113
91 13244213	41 43342124	91 32421323	41 21313132	91 24343243
92 34324231	42 21323113	92 31232231	42 44224332	92 13233121
93 44233224	43 43134324	93 32131223	43 22332134	93 31231132
94 42423123	44 42421211	94 24421211	44 32344213	94 13424232
95 24423431	45 13432132	95 22342433	45 42123134	95 11213443
96 43211342	46 24221133	96 13243112	46 42342343	96 23221334
97 33244224	47 11233132	97 12134344	47 32123231	97 23443423
98 12434343	48 34322344	98 33234424	48 33231221	98 43132443
99 24224343	49 12433134	99 42124211	49 34312424	99 12131332
00 32132424	50 23242133	00 44231334	50 12424321	00 43321244



# Beginner's Corner

## G.M. Steering Column Service



by Eugene Gentry

Several apprentice locksmiths have asked, "How do you remove the ignition lock on a G.M. steering column?" Well, when locksmith Ed Williams, said he had one to tear down, I was there to take pictures and record the action.

The problem? The owner of a 1983 Chevrolet Cavalier had his keys stolen or lost them, and Ed needed to put in a new ignition lock.

Now, Ed claims that he can tear down the steering column and have the ignition lock in his hand in eight minutes. I can see why, because he is completely organized. He has a tool box that holds only the tools he needs for this job. (See *photograph 1.*) Each tool has a specific job. In the box are a compression tool with two shanks, one metric and one standard, A G.M. steering wheel puller, a magnetic Phillips screw driver, an assortment of magnetic Torx bits, an 8" or 12" crescent, two ice picks, a ratchet with 7/8" and 13/16" sockets, and a nut driver with 9/32" socket. Also carried are three or four G.M. ignition locks.



1. Chest with G.M. steering column tools.

We are ready to dismantle the steering column. The first thing to do is disconnect the battery. This keeps the horn from honking every time you touch it. Remember, though, that

on any of the cars that have a computer, this will blank out the computer.

Step 1. Remove horn button by taking out the screws located on the underside of steering wheel. Use a 9/32" socket. The one we are working has a sport steering wheel, and the horn button just pulls off. (See *photograph 2.*)



2. Horn button. This one pulls off.

Step 2. Take out three Phillips screws. (See *photograph 3.*) The horn ring lifts out along with the spring loaded 1/4" horn shaft underneath.



3. Three screws hold the horn ring on.

Instead of the three Phillips screws, this sports wheel has three inverted Torx screws. A 3/16" socket will work on this. Step 3. Remove the retaining ring at end of steering wheel shaft, and the 13/16" nut on the shaft. (See *photograph 4.*)

Step 4. Use the wheel puller to pull the steering wheel. (See *photograph 5.*)

Step 5. Use the compression tool. (See *photograph 6.*) Turn down until you can see the split retaining ring on



4. Retaining ring on end of shaft and 1-3/16" nut.



5. The steering wheel puller attached.



6. Compression tool shown here. Use two ice picks to take out the split compression ring.

the shaft underneath.

Step 6. Use the two ice picks to loosen the split ring and walk it up the shaft then remove it.

Step 7. Lift out the horn plate.

Step 8. Take out a single Phillips screw on the left that holds the signal light switch. Lift out switch. Step 9. Remove the flasher button. The Phillips screw is in the middle at the end.

Step 10. Use the magnetic Phillips screwdriver to take out three recessed

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## G.M. Column

*Continued from page 188*

screws that hold the signal light assembly. (Don't drop them down inside the shaft). The magnet pulls them out of the recess. Pull out the signal assembly.

Step 11. What you see now in the upper right hand side, is the buzzer activator. This is hiding the retaining screw that holds in the ignition switch. Instead of trying to take this out, you can pry off the little plastic cover on top of the activator. Be careful with this, it could break or go flying.

Step 12. Now you can see the Phillips screw, or sometimes a Torx screw, the holds in the ignition lock. Remove this with a magnetic Phillips or Torx driver. Pull the lock out of its hole.

This type of retaining screw is used on G.M. from about 1979 to date. From 1969 to 1978, the lock had a spring loaded retainer on the rear of the lock. Removal procedure is the same, except at Step 12, instead of removing the screw, you have to drill in the indentation and push down on the spring loaded retainer at the top rear of the lock to remove it.

With the lock now in our hand, we can see the code on the side. This one is 22-V9.

Ed has put the new ignition lock in place, and we are ready to re-assemble the column.

Step 1. Insert ignition lock in the hole. On the old style, put some grease on the retainer at the rear of the lock to hold it down long enough to get it into position.

Step 2. Put in the retaining screw that holds in the lock, and snap on plastic cover on the buzzer switch.

Step 3. Set signal light assembly in position, and tighten the three screws with magnetic Phillips.

Step 4. Put screw in end of four way flasher, and install.

Step 5. Place the signal light handle in its proper position, and install single screw. Before continuing any more work, test this to see that it operating correctly.

Step 6. Set in horn assembly.

Step 7. Slip steering locking plate on the steering shaft. There is only one way this can go on as the grooves differ in spacing. Turn until the grooves are lined up.

Step 8. Slip the retaining ring on the shaft.

Step 9. Put on compression tool and tighten until you can see the groove the retaining ring goes into.

Step 10. Use the two ice picks to walk the retaining ring down the shaft and into the groove.

Step 11. Remove the compression tool.

Step 12. Line up the mark on the top of the steering shaft, and the mark on steering wheel, and slip the wheel on the shaft.

Step 13. Put 13/16" nut on the shaft, and tighten.

Step 14. Put on retaining ring at the end of the steering shaft. This is a safety factor so the steering wheel can not come off.

Step 15. Insert the little 1/4" spring-loaded horn shaft in its hole.

Step 16. Put on round inside horn ring. Hold down while you install three Phillips screws.

Step 17. Finish the job by installing two screws on the back side of the steering wheel that hold the outer horn button.

Here are a couple tips that might help in working on the steering column. If you do any work on cars with air bags or computers, follow the manufactures recommendations for disassembly.

On the disassembly of a standard column, place your parts in order, as you take them out, on the dash, or in a box. It is easy to see how they go back in.

A paint can opener can be used with ice picks to help get out the split retaining ring.

On the old ignition lock, prior to 1979, you can punch the thin casting with an awl, instead of drilling, to get at the retainer at the rear of the lock. §



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*Continued from previous page*

calling them these days. The link is about two inches below the main locking bolt over toward the edge of the door. It is connected to a metal strip that runs under the lock and in turn connects to a spring that is waiting for the order to fire the relocking bolt into the extended position.

In photograph 18 we have a close-up of the lock and main locking bolt. Here you can clearly see not only the hole that was drilled in the door, but the hole that was drilled in the main locking bolt as well. I should point out that I rotated the bolt 180 degrees to expose the hole. It was through that hole in the bolt that the relocking spring was hooked and jerked out. It was also through that hole that we punched back the hookbolt.



**18. Close-up of lock and locking bolt.**

Well that about wraps up this long-winded, stem-winder of a story. But that is how it goes with a Mosler lug door loaded with Rude Relsom. Sometimes it seems an effort in futility to try and educate Mr. Relsom. No matter how many times we try and teach him things like culture and hospitality, he just never seems to catch on. The next time I run into Mr. Relsom, I'll bet he has completely forgotten the lesson he should have learned today. Undoubtedly he will just stand there, rude as ever, and try to deny me entrance. And undoubtedly he will put up a valiant but unsuccessful fight. What a life. See ya' next month. §

### **Specialty Products**

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optimum wear and reliability. Pins are color coded for ease of use and identification following industry standards. They are packaged in versatile color coded paper envelopes with one gross (144 pieces) per envelope.

Specialty Products also produces a line of color coded .108 diameter interchangeable pins for interchangeable cores. The universal design of these pins is compatible for use with all Best, Falcon, KSP, Eagle

and Arrow IC products. Top/Master and bottom pins are manufactured from full hard #360 alloy brass and are packaged with 100 pcs. per envelope. Nickel silver bottom pins are also available for the A-2 system. A-3 and A-4 system pins are also stocked as well as caps and two sizes of springs (long or short) for use with either Best or Falcon cores.

The company offers a wide range of pinning kits for all of the pins they produce. Kits are assembled in a heavy duty metal box with an unbreakable plastic insert and a leak-proof cover. The SPK-33 kit offers 124 sizes in increments of three thousandths; Bottom pin sizes .156" thru .360" and Top/Master pin sizes .010" thru .200". The SPK-SS has 113 sizes in increments of five thousandths; Bottom pin sizes .115" thru .360" and Top/Master pin sizes .010" thru .320". SPK-33 and SPK-55 pin kits offer an easy to read pinning chart for 24 popular manufacturers on the inside cover. Hold down latches are provided on each end to secure the kit to a bench or work station. Pin kits are also available for interchangeable cores in A-2, A-3 and A-4 systems as well as original design pins and pin kits for Schlage and Kwikset. All pin kits come prefilled with all the necessary pins and springs on one easy to use level.

Plans are now underway to expand the product line with a new line of pins and pinning kits for several original manufacturers. They will be available by late summer.

For more information, contact your local distributor or Specialty Products Mfg. Co., 291 Clark St. Ext., Plantsville, CT 06479, Attn: Dave Randall, (203) 621-6969, Fax: (203) 621-6969. §

### **Lighter Side**

*Continued from page 176*

finish quality brass hardware.

Homes that greet you with average hardware backed by "beware" signs and recordings of dogs barking or "attack cat" lions roaring may represent anything from someone unwilling to invest in a more elaborate security system to someone with an interesting sense of humor.

But as you go about examining your neighbor's entry hardware, be careful in approaching the home with moderately good door locks and deadbolts but with no signs, no sounds, no flashing lights, and no evidence of additional security. That's usually the house with the big, bad dog asleep under the bushes by the front doorstep.

If you don't believe me, ask Don. §

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